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Subject **Regulation of the Minister of Climate Policy and Green Growth of , No WJZ/99099009, amending the Regulation on national EZK and LNV subsidies and the Regulation on opening EZK and LNV subsidies 2025 in connection with the introduction and opening of the subsidy module Climate-Neutral Economy Manufacturing Investment Subsidy (NIKI)**

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N.B.1. Due to the introduction of electronic publication, annexes are no longer submitted for inspection, but are rather sent to SDU as a separate file and published along with the Regulation.
N.B.2. If the regulation contains an annex, this annex must indicate the regulation and the relevant article number(s).

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Regulation of the Minister of Climate Policy and Green Growth of , No WJZ/ 99099009, amending the Regulation on national EZK and LNV subsidies and the Regulation on offering EZK and LNV subsidies 2025 in connection with the introduction and offering of the subsidy module Climate-Neutral Economy Manufacturing Investment Subsidy (NIKI)

The Minister for Climate and Green Growth,

In view of Articles 2, 4, 5(1)(2), 15, 16, 17(1)(4)(6), 19(2), 25, 28, 34(1), 48(1) and 50 of the Framework Decree on national EZK and LNV subsidies;

Hereby decrees the following:

Article I

The Regulation for national EZK and LNV subsidies [Regeling nationale EZK- en LNV-subsidies] is amended as follows:

A

A title is added after Title 4.13, reading:

Title 4.13. Climate-Neutral Economy Manufacturing Investment Subsidy (NIKI)

Article 4.13.1. Definitions

In this title, the following definitions apply:
auditor: a registered accountant or an accounting consultant with respect to whom an entry has been made in the Register of Auditors as intended in Article 36(2)(i) of the Accountancy Profession Act [Wet op het accountantsberoep];
bid: the subsidy intensity included in the subsidy application;
CO_2: CO_2 or CO_2 equivalent;
CO_2 equivalent: the amount of CH_4, N_2O, HFCs, PFCs and SF_6, which, in accordance with the factors in Annex 4.13.1, Part A, produces the same greenhouse effect as a mass unit of CO2;
CO_2 emissions: the sum total of greenhouse gas emissions into the atmosphere, expressed as CO_2-equivalents;
CO_2 emission reduction: the reduction in greenhouse gas emissions to the atmosphere;
NIKI CO_2 emission reduction method: the calculation method included in Annex 4.13.2;
right of dispensation: a transferable right to cause emissions into the air of one tonne of CO_2 equivalent during the calendar year in the calendar year in which such emissions take place without applying the tariff as referred to in Article 71p(1)(a) of the Environmental Taxes Act;
operating activities: activities that pertain to operation of the NIKI installation or installations after commissioning;
exploitation phase: the operation of the NIKI installation or installations during the duration of the NIKI project;
industrial undertaking: a commercial organisation which:

a. produces tangible goods, by which raw materials are processed and with a high degree of mechanisation and automation, mentioned in the Standard Industrial Classification 2025, version 2024, of the Central Statistical Office, main group C;
b. collects and treats waste water, mentioned in the Standard Industrial Classification 2025, version 2024, of the Central Statistical Office, main group E, subgroup 37; or
c. recovers from waste as referred to in the Standard Industrial Classification 2025, version 2024, of the Central Statistical Office, main group E, subgroup 38.2;
investment activities: activities necessary to bring the NIKI installation or installations into operation;
NIKI installation: a production installation that is modified or built in the NIKI project to reduce CO_2 emissions. The NIKI installation only concerns the applicant's production plant, not parts of the previous or subsequent steps in the production chain;
NIKI product: a measurable unit produced in the NIKI installation(s), which can be physically transported, can leave the gate of the production site, is economically tradable and is a source of proceeds for the industrial undertaking. Even if these conditions are met, CO_2 is not considered to be a NIKI product;
NIKI project: a coherent set of activities conducted in the Netherlands by an industrial undertaking with an investment in a NIKI installation or installations, which leads to a CO_2 emission reduction of at least 100,000 tonnes of CO_2 compared to the reference product or products within 10 years of commissioning of the NIKI installation or installations, and which fits within the definition set out in Annex 4.13.1, Part B;
NIKI calculation method: the calculation method included in Annex 4.13.3;
excess dispensation rights: the surplus of dispensation rights attributable to the NIKI project and which could be traded;
opt-out scheme: obtaining permission, on an exceptional basis, not to participate in the European Emissions Trading System, although the installation does meet one of the participation criteria;
production volume: the total quantity of NIKI products manufactured by the NIKI installation(s) within the operating phase, after commissioning the NIKI installation(s);
reference product: a marketable product that is replaced in the market by a NIKI product. The applicant must designate a reference product that performs the same function as the NIKI product, but it does not necessarily have to be physically the same;
subsidy intensity: the amount in euros of subsidy per tonne of CO_2 emission reduction.

Article 4.13.2. Granting of subsidy

On request, the minister will grant a subsidy for the implementation of a NIKI project to an entrepreneur operating an industrial undertaking who will independently carry out the NIKI project.

Article 4.13.3. Distribution of the subsidy ceiling and subsidy amount

1. The minister will allocate the subsidy ceiling in order of ranking of applications.
2. The subsidy for a NIKI project will be at least EUR 30,000,000 and will not exceed the amount of the subsidy ceiling.
3. Contrary to paragraph 2, the subsidy for a NIKI project may be less than EUR 30,000,000 if a residual budget of less than EUR 30,000,000 remains due to the allocation of higher-ranking applications.

Article 4.13.4. Eligible costs

The eligible costs are calculated in accordance with the NIKI calculation method applicable at the time of submission of the application.

Article 4.13.5. Implementation deadlines

1. The period referred to in Article 23(b) of the decree is 14 years.
2. The implementation of investment activities must start within 12 months of the decision to grant the subsidy.
3. The grant recipient must put the NIKI installation(s) into service no later than four years after the start of the NIKI project.
4. The operating activities must last ten years after the NIKI installation or installations have been commissioned.
5. At the request of the subsidy recipient, the minister may extend the period referred to in paragraph 2 by six months. In addition, the minister may extend the period referred to in paragraph 3 by 12 months. An extension will only be granted if the minister deems it appropriate and necessary.

Article 4.13.6. Grounds for rejection

Without prejudice to Articles 22 and 23 of the decree, the minister will reject an application if:
a. the subsidy is contrary to the climate, the environment and energy aid framework;
b. the subsidy applicant is not an investor in the NIKI installation(s) for which a subsidy is requested;
c. the investment costs are less than 20 per cent of the following sum: investment costs + discounted operating costs – discounted operational benefits;
d. the feasibility, consisting of financial, technical, operational and market feasibility, of the NIKI project is insufficient, as shown by the assessment of the submitted project plan and the required annexes referred to in Article 4.13.10(2);
e. a technology is defined within the NIKI project:
1°. falling under a category set out in the Regulation on the designation of categories of sustainable energy production and climate transition published at the time of submission of the application; and
2°. where the investment costs for applying this technology amount to ten per cent or more of the total investment costs referred to in Article 4.13.4 of the NIKI project;
f. has been applied for a subsidy by the applicant for a technology defined within the NIKI project on the basis of the Decree on sustainable energy production and climate transition incentives [Besluit stimulering duurzame energieproductie en klimaattransitie];
g. the bid is more than EUR 300/tonne of CO_2;
h. the indicated costs are not plausible;
i. an unsuitable reference product has been chosen;
j. the calculation of the CO_2 emission reduction:
1°. was not carried out, or was insufficiently carried out, in accordance with the prescribed method in the NIKI CO2 emission reduction method in force at the time of submission of the application, as shown by the grant applicant’s choices and justifications;
2°. is not sufficiently accurate, as evidenced by the quality of the data and sources used;
k. a subsidy is requested for an investment in a NIKI installation or installations which:
1°. allows the subsidy applicant to comply only with binding Union standards already in force; or

2°. does not go beyond established commercial practice generally applied across the Union and in all technologies;
l. it is not plausible that the NIKI installation(s) for which a subsidy has been applied for will remain operational without a subsidy after ten years of operation;
m. the NIKI project does not fit into a series of activities that will lead to fossil-free climate-neutral production for the applicant by 2050, as indicated in the project plan referred to in Article 4.13.10(3);
n. the NIKI project does not meet the Do No Significant Harm principle;
o. the NIKI project is mainly aimed at the construction of infrastructure;
p. the NIKI project is aimed at the production of energy from cogeneration;
q. the NIKI project uses fossil fuels as part of a new installation. Investments in the use of natural gas are excluded if the investment contributes to achieving the European Union’s climate target for 2030 and the objective of a climate-neutral European Union by 2050;
r. the NIKI product is used as fuel for more than ten percent of the total outgoing mass of the production process. If the production of the NIKI product is entirely based on carbon extracted from Direct Air Capture, more than ten per cent of the production output may be used as a synthetic fuel.

Article 4.13.7. Ranking criterion

The minister will rank the applications that have not been rejected higher the lower the bid.

Article 4.13.8. Obligations of the subsidy recipient

1. The subsidy recipient must demonstrably and systematically monitor and evaluate the results of the NIKI project by means of:
a. an annual report on the activities referred to in Article 4.13.10, at a time determined by the minister, based on the milestones of the investment activities;
b. an annual report on the activities during the operating phase, as referred to in Article 4.13.11, at a time determined by the minister, based on a recalculation of the necessary subsidy, in accordance with the NIKI calculation method applicable at the time of submission of the application.
2. If, at the time of the report referred to in paragraph 1(b), the subsidy recipient is an operator of an industrial plant as referred to in Article 71h(g) in conjunction with Articles 71i and 71k(2) of the Environmental Taxes Act, the report must also include:
a. a declaration that the grant recipient has used the opt-out scheme for the NIKI installation(s); or
b. a declaration that the subsidy recipient has not traded any excess dispensation rights in the previous year, a recalculation of the number of excess dispensation rights over the previous charging period and a declaration that the excess dispensation rights will not trade in the remaining operating period.
3. If the annual report referred to in paragraph 1(b) shows that the number of excess dispensation entitlements traded in whole or in part in the preceding calendar year, the rate applicable in that calendar year, as referred to in Article 71p(1)(a) of the Environmental Taxes Act, will be deducted from the subsidy amount for each excess dispensation right traded.
4. At the request of the minister or at least once every five years, the report referred to in paragraph 1(b) must be accompanied by a report of factual findings drawn up by an auditor on the production output of the NIKI installation or installations, the cost price and the market price of the products.

5. A request relating to an essential change as referred to in Article 37(3) of the decree must be accompanied by a description of the essential change, including arguments as to why this change is necessary within the NIKI project.
6. The subsidy recipient must cooperate with an evaluation of the impact of the NIKI project it has carried out, as referred to in Article 4.13.1, to the extent that this cooperation may reasonably be required of it.
7. The subsidy recipient owns the NIKI installation(s) in which investments are made and remains the owner during the investment and operation phase.

Article 4.13.9. Cumulation

If the energy investment allowance referred to in Article 3.42 of the Income Tax Act 2001 has already been granted for all or part of the eligible costs, a subsidy amount will only be granted so that the total subsidy amount does not exceed the amount that can be granted under this decree or the amount permitted under the applicable European support frameworks.

Article 4.13.10. Information requirements for subsidy application

1. The subsidy application must contain:
a. applicant details, including the name of the organisation, the number with which the industrial company is registered with the Chamber of Commerce, the postal and visiting address and the account number;
b. information about the contact person for the applicant including the name, phone number and email address;
c. the location of the NIKI installation;
d. records showing that the basic engineering has been completed;
e. a project plan;
f. a climate plan;
g. the bid.
2. The project plan referred to in paragraph 1(e) must contain the following components at a minimum:
a. a description of the NIKI project, including a plan with a milestone budget and go/no-go moments in the phase until the start of the NIKI project, substantiated by documents;
b. a description of the technical feasibility of the NIKI project, including the energy and mass balance of the production process with the NIKI installation(s) and, where applicable, reference installation(s);
c. a description of the financial feasibility of the NIKI project, including:
1°. a forecast of production output for 10 years;
2°. a budget indicating the total costs of the eligible activities and the amount of the requested subsidy, including a justification for the reference used and a substantiation of the production output of the NIKI installation(s), the cost price and the market price of the products, using the NIKI calculation method applicable at the time of submission of the application; and
3°. information on how the applicant finances its share of project costs;
d. a description of the market feasibility of the NIKI project, including a market study;
e. a description of the operational feasibility of the NIKI project, including the legal requirements;
f. a substantiation of the CO_2 emission reduction achieved by the NIKI project, using the NIKI CO2 emission reduction method applicable at the time of submission of the application;
g. an analysis of risks and mitigating measures for the entire NIKI project, consisting of at least, but not limited to, the technical, financial and operational feasibility and a sensitivity analysis of the CO_2 emission reduction calculation.

3. In any case, the climate plan referred to in paragraph 1(f) must contain a description of how the NIKI project fits within the investment agenda and subsequent steps of the applicant that lead to fossil-free climate-neutral production by 2050, including:
a. the subsequent steps that the applicant expects to take after the end of the NIKI project;
b. the steps already taken by the applicant to minimise the final energy consumption of the production process; and
c. the steps that will still be taken during the operational phase.
4. If the applicant operates an industrial installation as referred to in Article 71h(g) in conjunction with Articles 71i and 71k(2) of the Environmental Taxes Act, the climate plan referred to in paragraph 3 must also include:
a. a statement that the applicant has made use of the opt-out scheme for the NIKI installation(s); or
b. a declaration that the applicant will not trade any excess dispensation rights during the exploitation phase and a calculation in which the applicant makes a reasonable case for the number of excess dispensation rights over the exploitation period.
5. The information referred to in paragraph 2, preamble and subparagraph (c)(2), must be accompanied by a report by an auditor based on Standard 3400 of the Royal Netherlands Institute of Chartered Accountants.

Article 4.13.11. Advance on investment activities

1. An advance for investment activities must be provided in accordance with Article 46(6) of the decree.
2. By way of derogation from Article 46(4) of the decree, the advance payment must be:
a. 40 per cent of the maximum grant amount granted; or
b. the total investment costs in accordance with the approved budget of the NIKI project,
whichever is lowest.

Article 4.13.12. Advance on operating activities

An advance for operating activities must be provided in accordance with Article 46(7) of the decree.

Article 4.13.13. Adjustment of advance for operating activities

1. The advance payment referred to in Article 4.13.12 may be adjusted within six months after the end of the calendar year on the basis of the annual report referred to in Article 4.13.8(1)(b) in accordance with the NIKI calculation method applicable at the time of submission of the application, taking into account the production volume achieved.
2. If the sum of the monthly amounts provided in the preceding calendar year is less than the adjusted advance as per paragraph 1, the minister will settle the shortfall in paid monthly amounts. The minister will pay the underpaid amount to the subsidy recipient within six weeks of the date of the adjustment, provided that the maximum advance amount to be granted for the total subsidy period is not exceeded.
3. If the sum of the monthly amounts provided in a calendar year is more than the adjusted advance as per paragraph 1, the minister will settle the excess from the paid monthly amounts. The minister will deduct this excess from the next monthly amount to be paid and subsequently from as many monthly amounts as needed

for full repayment of the excess from the advances paid. If no further monthly amounts are due, the minister will recover this excess.
4. The adjustment referred to in paragraph 3 will be 60 per cent of the difference between the recalculated required amount of aid in accordance with the NIKI calculation method, taking into account the realised production volume.

Article 4.13.14. Application for subsidy determination

In any event, the final report referred to in Article 50(2)(a) of the decree, which accompanies the application for subsidy determination, must contain:
a. a general and technical description of the installations and infrastructure purchased and used at the production site;
b. an up-to-date calculation of the required subsidy in accordance with the NIKI calculation method applicable at the time of submission of the subsidy application; and
c. a calculation of the CO_2 emission reduction achieved based on the CO_2 emission reduction calculated on request per full load hour and the total production output during the operating phase.

Article 4.13.15. Knowledge sharing

1. At the request of the minister, the subsidy recipient must help to share the results and contribute to an evaluation on the effects of the activities subsidised under this title.
2. The subsidy recipient must disclose non-business-sensitive knowledge and information obtained from the project after the end of the project in a report of sufficient quality, at the discretion of the minister.
3. The minister may use the annual report referred to in Article 4.13.8(1) for the public wide dissemination of non-business-sensitive knowledge and information acquired from the NIKI project.

Article 4.13.16. State aid

The subsidy referred to in Article 4.13.2 contains state aid and is justified by state aid measure SA.103901 (2025/N).

Article 4.13.17. Expiry date
This title and Annexes 4.13.1, 4.13.2 and 4.13.3 expire with effect from **[to be specified]**, with the understanding that they will continue to apply to applications submitted before this date.

B

The following three annexes are added after Annex 4.12.2:

Annex 4.13.1 to Article 4.13.1 of the Regulation on national EZK and LNV subsidies

A. CO_2 equivalence factors

Name	**Chemical formula**	**Global Warming Potential (CO_2eq)**
Carbon dioxide	CO_2:	1
Methane	CH_4	28
Nitrous oxide	N_2O	265
HFC-23	CHF_3	12,400
HFC-32	CH_2F_2	677
HFC-41	CH_3F_2	116
HFC-125	CHF_2CF_3	3,170
HFC-134	CHF_2CHF_2	1,120
HFC-134a	CH_2FCF_3	1,300
HFC-143	CH_2FCHF_2	328
HFC-143a	CH_3CF_3	4,800
HFC-152	CH_2FCH_2F	16
HFC-152a	CH_3CHF_2	138
HFC-161	CH_3CH_2F	4
HFC-227ea	CF_3CHFCF_3	3,350
HFC-236cb	$CH_2FCF_2CF_3$	1,210
HFC-236ea	CHF_2CHFCF_3	1,330
HFC-236fa	$CF_3CH_2CF_3$	8,060
HFC-245ca	$CH_2FCF_2CHF_2$	716
HFC-245fa	$CHF_2CH_2CF_3$	858
HFC-365mfc	$CH_3CF_2CH_2CF_3$	804
HFC-43-10bn	$CF_3CHFCHFCF_2CF_3$	1,650
PFC-14	CF_4	6,630
PFC-116	C_2F_6	11,100
PFC-218	C_3F_8	8,900
PFC-318	c-C_4F_8	9,540
PFC-31-10	C_4F_{10}	9,200
PFC-41-12	C_5F_{12}	8,550
PFC-51-14	C_6F_{14}	7,910

PFC-91-18	$C_{10}F_{18}$	7,190
Sulphur hexafluoride	SF_6	23,500

B. NIKI Project

1. Objective

The objective of the subsidy module Climate-Neutral Economy Manufacturing Investment Subsidy (NIKI) is to reduce CO_2 and other greenhouse gas emissions (expressed as $CO_{2\text{-eq}}$) in industrial production processes and product chains by supporting the rollout of large-scale industrial sustainability projects.

Below is an overview of the two NIKI project categories and the different topics that fall within the scope of the NIKI.

2. Categories and topics

2.1. Category A: Direct saving of CO_2 emissions in the production process
In this category, a distinction is made between three topics.

Topic 1. Large-scale process efficiency
This topics concerns projects in the production process of the subsidy applicant aimed at significantly reducing CO_2 emissions in the production process compared to the CO_2 emissions from the reference process by improving energy efficiency. For example, by using energy-intensive production processes or by radical change in the production process in which investments are made.
A risk of investments in process efficiency measures is a lock-in to the current fossil production process. After all, these investments are often investments with a long depreciation period (e.g. 10 or 15 years). To prevent these lock-in effects, the application must plausibly show that the investment is in a transition to a fossil-free production process.

Topic 2. Electrification
This topic includes projects related to the production process of the subsidy applicant aimed at a substantial reduction of CO_2 emissions in the production process due to electrification.
For example, through the electrification of cracking units/furnaces and electrification of propulsion systems where the energy or heat source has been replaced by electricity. But this also includes the direct application of electrons in the production process, such as in electrochemical and/or plasma technology-based production processes.

Excluded are investment projects aimed at hydrogen production by electrolysis.

For electrification projects, these may possibly lead to fossil lock-in. Here, too, the subsidy applicant must demonstrate how the investment fits into the transition to fossil-free production.

Topic 3. Hydrogen
Support from the NIKI is available for projects in an innovative hydrogen production process. This concerns the production of hydrogen to the extent that it is not produced with an electrolyser as referred to in the ‘subsidy scheme for scaling up renewable hydrogen production by electrolysis’.

In addition, NIKI aid may be requested for investment projects in the applicant's production process aimed at the use of so-called low carbon hydrogen instead of fossil hydrogen as it applies to the production of the reference product, e.g. for the production of ammonia. When using low-carbon hydrogen, the subsidy applicant must declare and demonstrate that this hydrogen provides at least 70 per cent fewer greenhouse gas emissions over its life cycle than fossil-derived hydrogen (12,516 kg CO_2/kg H_2). From the year of publication of the subsidy request instrument as referred to in the letter to Parliament entitled 'Progress of hydrogen policy'[1], the application of renewable liquids and gaseous fuels of non-biological origin (RFNBO) (which also meets the qualification of low-carbon hydrogen) will no longer be part of this category. RFNBO means hydrogen that meets the RFNBO requirements, referred to in Directive (EU) 2023/2413 amending Directive (EU) 2018/2001, and which are specified in Delegated Regulation (EU) 2023/1184 and Delegated Regulation (EU) 2023/1185. The subsidy application must demonstrate that the hydrogen used in the project meets this requirement by means of a valid certificate. This certificate must have been issued by a compliance assessment body affiliated with a voluntary system recognised for this purpose by the European Commission.

Excluded are investment projects aimed at gasification in which the product, the syngas, is used directly for the production of heat and electricity.

Hydrogen projects could potentially lead to fossil lock-in. Here, too, the subsidy applicant must demonstrate how the investment fits into the transition to fossil-free production.

2.2. Category B) Replacement of primary fossil carbon in the product chain
This category includes investment projects in production processes that ensure the replacement of primary fossil carbon for non-energy use in a product chain with non-primary fossil carbon. As a result, less primary fossil carbon is captured in NIKI products than would have been the case with existing technology and product chains. In this respect, primary fossil carbon refers to fossil resources used in processed or unprocessed form as raw materials in production processes. Substitution can be achieved by applying recycled or biogenic carbon-containing feedstock instead of primary fossil carbon.
Sources of recycled carbon include (but are not limited to) carbon from recycled plastics and other substances, from recovered CO_2, from industrial production processes (Carbon Capture Utilisation (CCU)) or from ambient air through Direct Air Capture (DAC).

For recycling of waste streams of plastics and other substances and residual streams, various forms of recycling are eligible for support, including chemical recycling. Some examples of chemical recycling methods are depolymerisation processes, pyrolysis and gasification technologies. Innovative new forms of recycling, such as solvent recycling, may also be eligible for the NIKI. Recycling of waste that entails upgrading to materials intended to be used as padding materials or for animal feed and other food applications is excluded.

Annex 4.13.2 to Article 4.13.1 of the Regulation on national EZK and LNV subsidies

Introduction

[1] Letter to Parliament entitled 'Progress of hydrogen policy' of 30 May 2024, Parliamentary Proceedings II 2023/24, 32813, No 1395.

This annex describes the method for determining the reduction in greenhouse gas emissions to the atmosphere of a NIKI project. As an applicant for a NIKI project, you are obliged to use this method to determine the emission reduction[2] of your NIKI project.

By carrying out NIKI projects and producing NIKI products, companies reduce greenhouse gas emissions, expressed as $CO_{2\text{-eq}}$, resulting in fewer emissions released into the atmosphere during their life cycle than the products they are replacing in the market. The NIKI CO_2 emission reduction method takes into account emissions arising in different phases of a product's life cycle and the emission reductions that can be achieved in these phases. The European Innovation Fund (IF) is based on the same idea. The NIKI CO_2 emission reduction method is therefore inspired by the IF method. The method is based on calculations and not on measurements of emissions.

Contents

[2] 'Emission' or 'emission reduction' in this document always refers to greenhouse gas emissions into the atmosphere and the reduction of these greenhouse gas emissions.

Framework and limitations

A NIKI application consists of several parts. Among other things, you must submit a project plan containing a description of the activities as part of the project, installation or installations you intend to build or adapt and the NIKI products you intend to produce with them. The project plan also forms the basis for applying both the NIKI calculation method and NIKI CO_2 emission reduction method.

This document describes the NIKI CO_2 emission reduction method and provides instructions for applying the method correctly. In addition to this document, a NIKI calculation model for CO2 emission reduction will be published for the preparation of NIKI applications to ensure a consistent submission method. This calculation model will be published on the RVO website at the same time as the publication of the Order in the Government Gazette. You must submit the completed calculation model with your application.

The emissions of all known greenhouse gases are included in this method (see also Annex 1 to the NIKI scheme). The unit in which the emissions is expressed is tonnes of carbon dioxide equivalents (tonnes of $CO_{2\text{-eq}}$). CO_2 may refer to other greenhouse gases in the text.

In your NIKI application, you use a substantiated forecast of total production during the operating phase to calculate the total emission reduction of your NIKI project. You also calculate the emission reduction per unit of NIKI product based on this. NIKI projects have an exploitation phase of 10 years after the installation is put into operation. The NIKI product will be produced during this period. During project implementation, you report on the emission reduction achieved based on the actual production output of the NIKI installation and the emission reduction per unit of NIKI product from your application. The advance on the subsidy to be paid is also based on the emission reduction achieved.

Terms and definitions

The table below contains the definitions of key terms in this method, provided they are already included in the scheme text. The terms are not listed alphabetically, but are covered in an order that contributes to understanding the coherence between the terms.

Term	Definition
NIKI	Climate-Neutral Economy Manufacturing Investment Subsidy
Residual fraction	Fraction of products from the NIKI process with economic value that are not designated as NIKI products.
Reference	The reference for the NIKI project is the total of reference products.

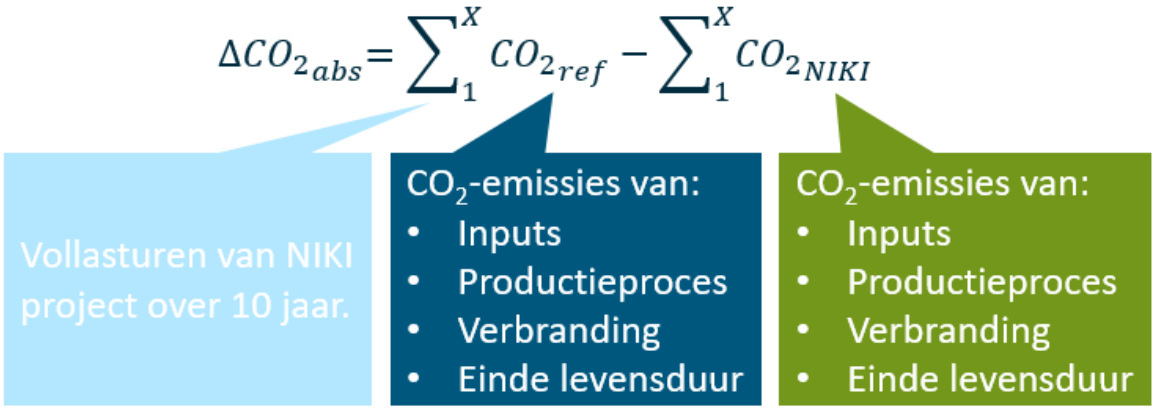
Physically identical	(Approximately) equal purity, concentration, energy density during incineration (lower heating value) and composition.
Reference process	The production process to manufacture a reference product.
Co-product	Marketable products produced in the reference process that are not a reference product.
Production output	Quantity of NIKI product in a defined unit produced over a given period of time.
Operating phase	Consecutive period of 10 years after the NIKI installation is put into operation, during which production of the NIKI product takes place.
Life cycle	The subsequent steps from raw material extraction up to and including disposal of products.
Life cycle phase	Phase in the life cycle of a product. The NIKI CO_2 emission reduction method takes into account greenhouse gas emissions over several phases of the life cycle of products.
NIKI calculation model for CO2 emission reduction	Excel document made available by RVO with the calculations and justifications. This is based on instructions in the NIKI CO_2 emission reduction method.
Input	All incoming flows to a process, including raw materials, fuels, energy, semi-finished and intermediate products.
Rigid input	Any input whose supply does not change in the event of a change in demand for the same input.
Elastic input	Any input whose supply follows a change in demand for the same input by scaling up or down production capacity.
Secondary effects	Emissions occurring as a result of the NIKI project that are outside the system boundary of the calculation.

In order to improve readability, we use some terms in singular in this document. So, when we refer, for example, to a product, installation, input or reference process, this may also concern several products, etc.

Summary of the NIKI CO_2 emission reduction method

The starting point for the emission reduction method is the NIKI product produced in the NIKI project. The project plan describes products and production processes. For the calculation of the CO_2 emission reduction, the emissions of NIKI products are compared to reference products.

The CO_2 emission reduction from the NIKI project is calculated based on the difference between the emissions of the reference product and emissions of the NIKI product, summed up over the production output during the operating phase. The formula is shown in Figure 1.



Vollasturen van NIKI project over 10 jaar.
CO2-emissies van:

- Inputs
- Productieproces
- Verbranding

Einde levensduur
CO2-emissies van:

- Inputs
- Productieproces
- Verbranding

Full load hours of NIKI project over 10 years.
CO2 emissions from:
Inputs

Production process

Incineration

End of life
CO2 emissions from:
Inputs

Production process

Incineration

Figure 1: The CO_2 emission reduction of the NIKI project compared to the reference during the operating phase.

NIKI products and reference products

A NIKI installation may produce one or more products. For each product, designate a reference product that performs the same function. The products together form the NIKI products, the reference products together form the reference.

> *Example: An applicant has a NIKI project with a biorefinery. This refinery consists of a biogenic carbon stream (bio)gas, (bio)petrol, (bio)diesel, (bio)naphtha and (bio)fuel oil. These five products are collectively the NIKI products in this application.*

A reference product does not necessarily have to be physically the same as the NIKI product. If the products are physically different from each other and more or less must be produced to fulfil the same function, the correction factor $cf_{function}$ will be corrected for this.

System and process limits

The CO_2 emissions of the NIKI project and the reference are determined by establishing the life cycle emissions of the products. The life cycle of the product consists of several life cycle phases. Which phases are included is determined as a system limit. The total emission of a NIKI product is the summation of the

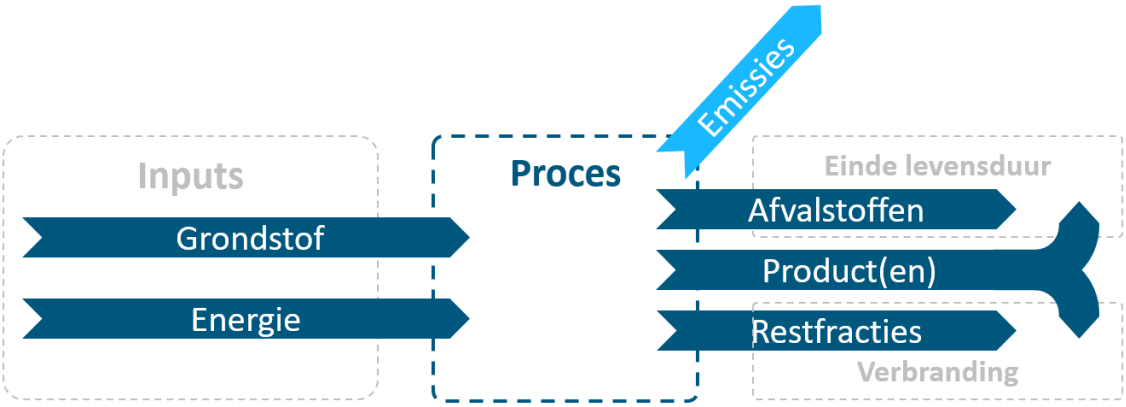
emissions from the individual life cycle phases. The NIKI CO_2 emission reduction method takes into account the following life cycle phases:

- Inputs
- Process
- Incineration
- End of life

The process limit indicates the step by which the production process of the NIKI product starts and ends in the NIKI installation. This determines where the life cycle phase process begins and which inputs are involved. If you need to define a reference process, you also determine a process limit for this.

Mass and energy balance

You establish the mass and energy balance of the production process of the NIKI product. This shows the incoming and outgoing mass and energy flows that are necessary for the production of the product (see Figure 2). You also calculate a carbon balance. The mass and energy balance serves as a basis for attributing CO_2 emissions to the different flows.



Inputs
Grondstof
Energie
Proces
Emissies
Einde levensduur
Afvalstoffen
Product(en)
Restfracties
Verbranding

Inputs
Raw material
Energy
Process
Emissions
End of life
Waste
Product(s)
Residual fractions
Incineration

Figure 2: Mass and energy balance of the production process.

Determining CO_2 emissions

For all life cycle phases, determine emissions released into the atmosphere. This is done for the NIKI product based on the mass and energy balance in combination with emission factors and information on emissions during incineration or end of life.

To determine emissions, you must select appropriate emission factors. The NIKI CO_2 emission reduction method prescribes a hierarchy in the choice of emission factors from different sources. These emission factors are multiplied by the quantities of the different mass and energy flows shown in the mass and energy balance.

There are two ways to determine the emissions of the reference product:

1) This method assigns fixed emission factors to a number of products. If you can use a reference product from these lists, you must apply the designated emission factor.
2) If no designated emission factor is available, you must also prepare mass and energy balance for the production process of the reference product and follow the same process as for NIKI products.

Determination of total CO_2 emission reduction through the NIKI project

You use the NIKI calculation model CO_2 emission reduction to calculate the total CO_2 emission reduction and to justify the choices made.

Check whether negative secondary effects of the NIKI project exceed emission reduction

'Transport and use' of NIKI products is not part of the system limit in the NIKI CO_2 emission reduction method. However, in some cases, the replacement of conventional products by NIKI products at this life cycle phase may cause additional emissions. Because this is outside the system limit, it is not included in the calculation of the total emission reduction. However, secondary effects may not exceed the total emission reduction of the NIKI project. You need to determine this in accordance with Chapter 8, step 7 'Check for negative secondary effects'.

Step-by-step plan for the NIKI CO_2 emission reduction method

You go through seven steps with this method to determine the CO_2 emission reduction of your NIKI project. The seven steps are as follows:

1 Determine the NIKI product

2 Determine the reference

3 Determine system and process limits of the NIKI and reference production processes

4 Determine the mass and energy balance (inputs, products, waste and residual flows and direct emissions)

5 Determine CO_2 emissions over the life cycle phases (input, process, incineration and end of life)

6 Determine the total CO_2 emission reduction of the NIKI project

7 Check whether negative secondary effects exceed emission reduction

These steps are explained in upcoming chapters.

1. Step 1: Determine the product

The starting point of the NIKI scheme is that the production of NIKI products in the NIKI project will replace other products in the market that cause more CO_2 emissions during their life cycle. NIKI projects can also avoid the expansion or new

construction of conventional production plants in the event of increasing demand for the product. So, the function of the NIKI product is decisive for the reference and the ultimately calculated emission reduction.

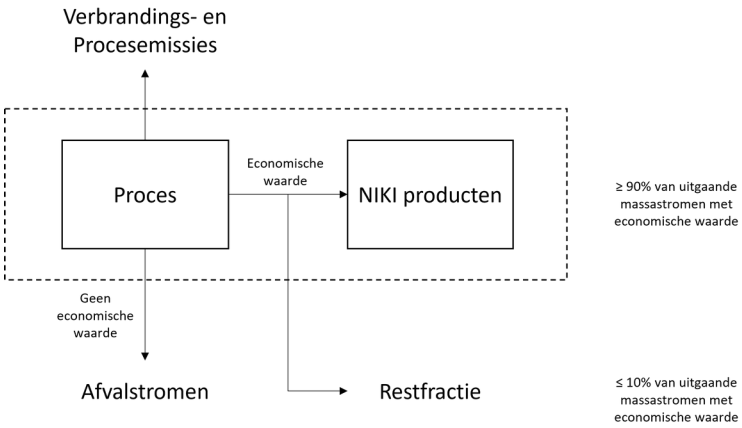
For the purpose of determining NIKI products, the following conditions apply:

- A NIKI product is a product for which the NIKI project has been established.
- A NIKI product must be economically marketable.
- The NIKI product or sum of products generates the majority of the revenues of the NIKI project.
- The NIKI product or sum of products together constitute more than 90% of the mass flow from the NIKI installation process which has an economic value.
- You determine which products you take into account in the calculation.
- Other products with an economic value are considered as residual fraction.
- CO_2 never applies as a NIKI product or residual fraction. If a NIKI process produces CO_2, include this in the CO_2 emissions calculation as incineration or process emissions.
- You include energy flows with a recovery operation as a NIKI product or residual fraction.
- Other streams are assumed to not have economic value, i.e. waste or emissions released into the atmosphere.

Economically marketable means that the product can potentially be physically transported to different buyers in the market. If the product can only be further processed at an installation associated with the applicant’s premises, the product will not be considered marketable.

You determine NIKI products so that they make up at least 90% of the outgoing mass flow that has an economic value. It is up to you to determine whether and which products of economic value you do not consider a NIKI product, up to a maximum of 10% of the outgoing mass flow (see Figure 3). These products constitute the residual fraction. For the residual fraction, the CO_2 emissions are calculated as the emissions released from their complete incineration.

> *Example: 80% of the outgoing mass flows have an economic value. However, there are a number of very small streams between them that would take a lot of effort to describe individually. You have the option to consider part of this as a residual fraction. This may be a maximum of 10% of the outgoing mass flow with an economic value. The remaining 90% or more must be included as NIKI products. In this example, at least 72% (90% of the 80%) of the outgoing mass flows of the NIKI project will be NIKI products.*



Verbrandings-en Procesemissies	Incineration and process emissions
Proces	Process
Geen economische waarde	No economic value
Economische waarde	Economic value
NIKI producten	NIKI products
Restfractie	Residual fraction
≥90% van uitgaande massastromen met economische waarde	≥ 90% of outgoing mass flows with economic value
≤10% van uitgaande massastromen met economische waarde	≤10% of outgoing mass flows with economic value

Figure 3: Waste streams and residual fraction

2. Step 2: Determine the reference

2.1.Reference product and correction factor

A reference product is the product that is replaced on the market by a NIKI product. This reference product often has (almost) the same chemical composition and physical properties as the NIKI product and therefore fulfils the same function.

If the reference product is not physically identical or has a different composition than the NIKI product, you must provide evidence from sources that the functionality is the same. This can be done, for example, through agreements with customers who want to use the product for the same purpose. This is not necessary if the reference product is physically identical, as it is assumed that the sales market will be comparable.

If the NIKI project product has several functionalities not covered by a single reference product, determine a reference product for each functionality.

> *Example: Pyrolysis oil from biogenic residual streams can be used as a raw material for plastic production, but also as fuel for maritime shipping. The NIKI project envisages supplying 40% to the plastic industry for further processing into raw materials and selling the remaining 60% as biofuel for maritime transport. This will replace the reference products, naphtha and fuel oil, respectively.*

You must determine a correction factor for the possible difference in the amount required of the reference product to fulfil the same function as the NIKI product. If the reference product is physically identical to the NIKI product, the correction factor is 1. The correction factor must be determined on the basis of the required

units of product of the reference product which is replaced by one product unit of the NIKI product. If there are several reference products, a separate correction factor may apply for each reference product.

> *Example: A producer of a bio-based alternative to rock wool submits a NIKI application. Firstly, justification must be provided as to which reference product is replaced by the functionality of the bio-based insulation product. The applicant provides declarations of intent from several construction companies wishing to use the insulation product to replace rock wool. Research carried out by the applicant shows that the bio-based alternative weighs 30% less per m^3 compared to rock wool, but that 10% more volume is needed to achieve an equivalent insulation value. The applicant therefore applies a correction factor of 0.77 (=0.7 x 1.1).*

2.2. Determine whether you apply an available emission factor or define a reference process

To determine the emissions of the reference product, first determine whether a standard emission factor is available or whether you have to establish a reference process (see also Figure 4).

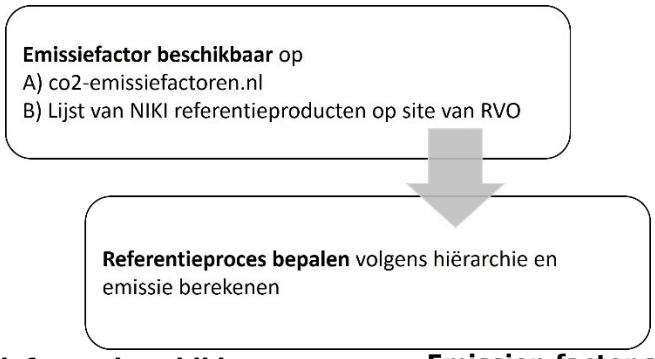


Figure 4: Steps to determine the reference product

A standard emission factor is available

If a prescribed emission factor is available, you must use it. Two types of emission factors are prescribed:

A. For a product used as an energy carrier or fuel, use the emission factors published on co2-emissiefactoren.nl. Use the well-to-wheel value (WTW).
B. For a number of products, an emission factor has been calculated according to the NIKI CO_2 emission reduction method. These products may be relevant as reference products for the target group of the NIKI scheme. If you can designate a reference product that is on this list, you must apply the relevant emission factor for this reference product. The list can be found on the RVO website from the date of publication of the NIKI scheme.

If you have to use one of these emission factors, you no longer need to create a reference process for that product.

Determine a reference process

If no emission factor can be determined from the above sources for an appropriate reference product, follow the same steps for the production process of the reference product as for NIKI products. This means that for the reference, you will have to describe one or more reference processes with which all products with the same functionalities of the NIKI products can be produced.

For each NIKI-product, you must designate a reference product and describe a reference process for each reference product for which no emission factor is available. If a reference process produces several reference products in the same production ratios between the products as the NIKI project, this single reference process is sufficient for the relevant reference products. If this is not the case, the starting point is that a reference process must be established for each reference product.

If the product portfolio of the NIKI process corresponds to the product portfolio of a single reference process, you may describe the reference to a single reference process, without applying an available emission factor for part of the products.

> *Example: You replace half of a raw material with a bio-based alternative. The product portfolio remains the same. One of the products can be found at co2emissiefactoren.nl. According to the above steps, you should use the available emission factor for this and describe reference processes for the other products. However, since the product portfolio remains the same, in this case you may describe a reference process that all reference products are manufactured. If an emission factor is available for <u>all</u> reference products, use the available emission factors.*

Note: if the reference products are not produced in the same proportion or the correction factor does not match, the reference products must be described in separate processes.

2.3. Definition of a reference process if no emission factor is available

If no emission factor is available, describe reference processes. A reference process must as far as possible correspond to the Best Available Technology (BAT)[3], including energy use per tonne of product. The reference process is based on processes without Carbon Capture and Storage (CCS) application because CCS is also excluded from the NIKI project.

You establish the reference process using the hierarchy described below. If there are several common production processes, make a choice and justify why the chosen production process is the most suitable comparable process. The NIKI calculation model for CO_2 emission reduction provides the opportunity to justify your choice.

To determine the inputs, products and process emissions of the reference process, follow the hierarchy below. You must always justify why you chose a particular

[3] https://eippcb.jrc.ec.europa.eu/reference.

source. At level 4 of the hierarchy, you also justify why no suitable reference process could be found at the higher levels.

1. Use a BAT Reference document (BREF) to determine the mass flows of inputs and outgoing flows in the reference process and the process emissions. Use the most favourable value of the bandwidth if a bandwidth is included for a variable. In this context, favourable means values that lead to the lowest emission factor. The application of CCS is excluded.
2. If the NIKI project concerns a change to an existing production process without a change to the produced product, you may choose to use your existing (i.e. unchanged) production process as a reference scenario, provided that it corresponds to the BAT excluding CCS. This is substantiated in the application (e.g. by submitting a BAT test based on the BREF[4]). If the existing production process does not meet the BAT requirements, apply the hierarchy above.
3. If you can partly base the reference process on the production process of a product included in the list of emission factors on the RVO website (as described in 3.2.1), then use all the relevant data from this process. An example of how you can do this is also included in this list (for example, polyethylene derived from ethylene).
4. If steps 1-3 do not provide a suitable reference process or if data is missing to draw up the EIA, you must base the EIA partly on other sources.
    - Use Ecoinvent's Life Cycle Inventory dataset for inputs, outgoing flows and emissions. This is the Ecoinvent commercial LCI dataset[5], the latest version at the time of publication of the scheme, which determines the inputs, outgoing flows and emissions of the reference process. The baseline data must be updated within the last five years ago and CO_2 equivalents emissions must be calculated over 100 years. See also the document[6] with elaborated NIKI reference products that uses this approach for a specific reference product as an example. Other Life Cycle Inventory datasets[7] can only be used if you can justify that Ecoinvent does not have a suitable LCI entry. This order ensures a consistent approach between applicants. If the reference process of the product is described in a public LCI database[8], the most recent value for inputs, outgoing flows and emissions may be derived from it. This should be for the same process, with CO_2 emissions equivalents calculated over 100 years. You can establish an appropriate reference process or supplement missing data from other sources. Justify your choices with regard to the following:
        i. Justification of why the chosen reference is most appropriate;
        ii. Justification of the process and the associated emissions using (scientific) sources from peer-reviewed journals or reports (e.g. publications from public bodies such as the EC Joint Research Centre).

[4] This BAT test may be limited to the best available technologies that affect greenhouse gas emissions. You do not need to demonstrate that you meet BAT for pollution to air, water, soil or other environmental aspects that do not affect greenhouse gas emissions.

[5] Ecoinvent 3.11 LCI dataset: https://ecoinvent.org/ecoinvent-v3-10/

[6] List of NIKI reference products on RVO website

[7] Overview of public Life Cycle Inventory datasets: https://nexus.openlca.org/databases#free-provider

[8] Overview of public Life Cycle Inventory datasets: https://nexus.openlca.org/databases#free-provider

For the reference process, you then draw up mass and energy balance, as described in Chapter 5. In doing so, use the same source for all necessary data based on the above hierarchy as much as possible. In the event that not all the data in the same source is available, you may supplement the hierarchy with other sources. Such a combination of sources may prevent the mass and energy balance and/or carbon balance from being closed. In that case, you may deviate from the instructions to use the lowest value of the range in a BREF document. Within the range, you approach a higher value that ensures that the mass and energy balance are closed.

2.3.1. Co-products and allocation when determining a reference process

If the reference process produces other marketable products in addition to the reference product, these products are considered co-products. For example, steam or residual gases should be considered co-products if they can be used meaningfully. If a residual flow is not considered to be a co-product, you must provide proper justification. Note: this is the reference process and because we assume the BAT, the starting position is always that residual flows that can still be used meaningfully are traded as co-products.

If the reference process exports steam or electricity, increase this as negative emission. To do so, use the emission factors prescribed in Chapter 5.1.3. and enter them as a negative value in the NIKI calculation model CO_2 emission reduction. This is also mentioned in the relevant tab.

The emissions from the reference process and inputs are allocated to the reference product or co-products based on mass allocation. Provide reasons for the allocation in the application.

> *Example: A NIKI project produces two products: product A and product B. The reference process produces the same products in the same proportion as the NIKI process. So, the reference process is sufficient for both product A and product B of the NIKI project. The reference process also produces a third product (C) as a by-product of the process. Product C is considered to be a co-product from the reference process and emissions are distributed between products A and B on the basis of mass allocation.*

Note: for the NIKI process, we refer to a residual fraction for reference processes of co-products. Emissions are assigned differently for co-products than for a residual fraction. For the residual fraction, this is described in Chapter 1.

3. Step 3: System and process limits

3.1. System limit

The system limit defines which life cycle phases and associated emissions are included in the calculation and also determines the demarcation of the energy and mass balances. A life cycle concerns all steps from raw material extraction to disposal over the life span of a product.

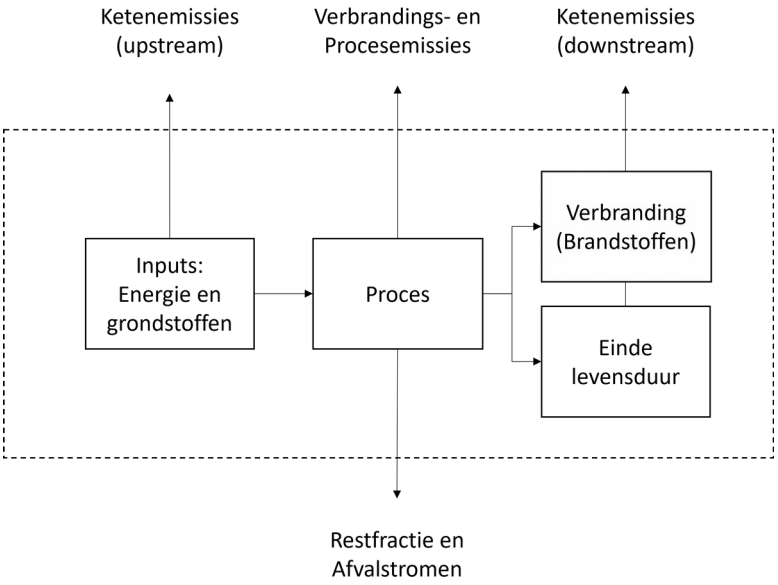
For your NIKI product and reference product, calculate emissions for the following life cycle phases:

- **Inputs:** Emissions related to all incoming energy and raw materials for the process. This includes emissions from raw material extraction and transport, emissions related to intermediate products that serve as input, including extraction, production and transport of electricity, heat and other energy carriers. Recycled raw material flows are also included among the inputs for which the emission factor takes recycling into account.

- **Process:** Emissions from the production of the NIKI product at the NIKI installation or from the production of the reference. The scope of the ‘process’ life cycle phase includes the applicant’s NIKI installation that includes the (innovative) parts of the project. These emissions include, inter alia, incineration and process emissions and emissions associated with waste and residual streams produced during the process.

- **Incineration:** Emissions released during incineration of the product. This applies only to NIKI projects that produce fuels as products.

- **End of life:** Emissions released at the end of the product’s service life. This may be due to dumping, incineration (with energy recovery), (partial) recycling or long-term use.



Ketenemissies (upstream)	Chain emissions (upstream)
Inputs: Energie en grondstoffen	Inputs: Energy and raw materials
Verbrandings- en Procesmissies	Incineration and process missions
Proces	Process
Ketenemissies (downstream)	Chain emissions (downstream)
Verbranding (Brandstoffen)	Incineration (fuels)
Einde levensduur	End of life
Restfractie en Afvalstromen	Residual fraction and waste streams

Figure 5: Life cycle phases and related emissions

Other life cycle phases, emissions during use of the product, are excluded from the calculation. This is due to the fact that the emissions in this phase are not imputable to the NIKI project, but are often the result of agreements between chain partners or behaviour of end users.

The life cycle starts with raw material extraction for the product and ends with the end of service life or long-term use of more than 50 years. If the life cycle starts at a waste product as a raw material, the system limit starts from the time of collection.

3.2.Processlimits

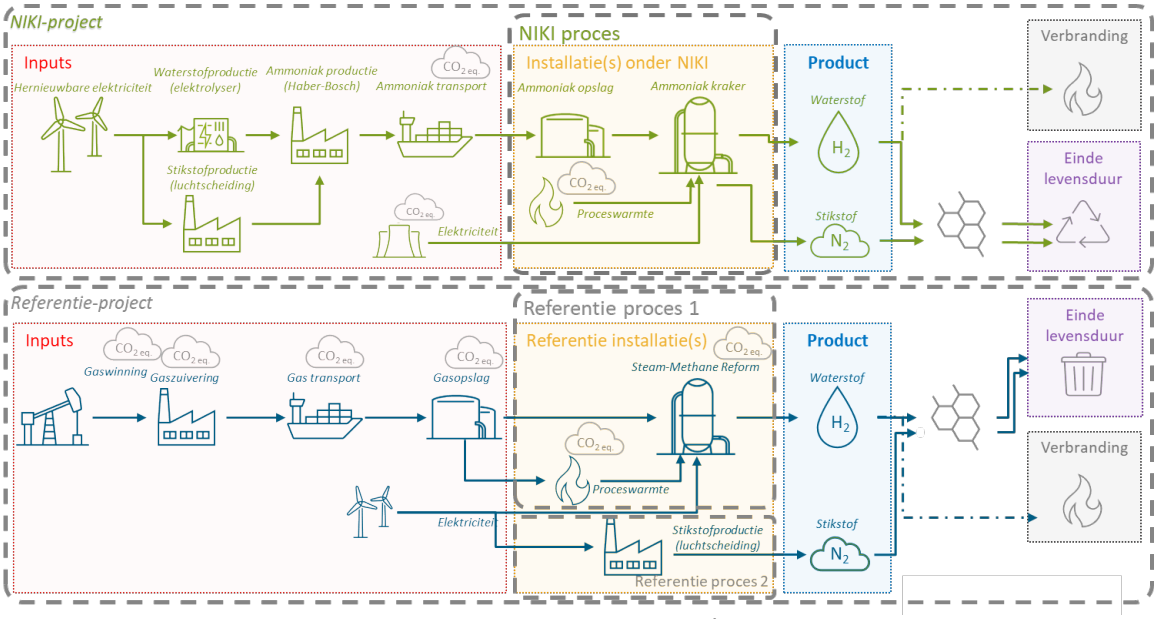
The ‘process’ life cycle phase has a key position in the life cycle of an NIKI product or reference product. Once you have determined the process limit – the starting and end point of this life cycle phase – you can also define the limits of the other life cycle phases. To clarify your application, provide a schematic representation of the process, with process limits, inputs, residual flows, waste streams, process

emissions and products (for an example, see Figure 3). This is included in the NIKI calculation model for CO_2 emission reduction in which you calculate the CO_2 emission reduction.

The process limit of the NIKI project includes the physical installation or installations used to produce the NIKI product. At any rate, this always concerns the NIKI installation in which investments are made, but may also concern other installations that are part of the production process and at the same location.

The process limit starts at the point where the inputs are imported. The process limit ends where the NIKI product leaves an installation.

You also apply the same principle if you need to describe a process for a reference product. You determine the reference process and associated process limits according to the hierarchy described in Section 3.2.



NIKI-project
Inputs
Hernieuwbare elektriciteit
Waterstofproductie (elektrolyser)
Ammoniak productie (Haber-Bosch) .
Ammoniak transport
Stikstofproductie (luchtscheiding)
Elektriciteit
NIKI proces
Installatie(s) onder NIKI
Ammoniak opslag
Ammoniak kraker
Proceswarmte
Product
Waterstof
Stikstof
Referentie-project
Inputs
Gaswinning
Gaszuivering

NIKI project
Inputs
Renewable electricity
Hydrogen production (electrolyser)
Ammonia production (Haber-Bosch)
Ammonia transport
Nitrogen production (air separation)
Electricity
NIKI process
Installation(s) under NIKI
Ammonia storage
Ammonia cracking unit
Process heat
Product
Hydrogen
Nitrogen
Reference project
Inputs
Gas extraction
Gas purification

Gas transport	Gas transport
Gasopslag	Gas storage
Elektriciteit	Electricity
Referentie proces 1	Process 1 reference
Referentie installatie(s)	Installation reference(s)
Steam-Methane Reform	Steam methane reforming
Proceswarmte	Process heat
Stikstofproductie (luchtscheiding)	Nitrogen production (air separation)
Referentie proces 2	Process 2 reference
Product	Product
Waterstof	Hydrogen
Stikstof	Nitrogen
Verbranding	Incineration
Einde levensduur	End of life
Einde levensduur	End of life
Verbranding	Incineration

Figure 6: Illustration of the system and process limits and subdivision of life cycle phases for an ammonia cracking unit case.

4. Step 4: Determine the mass and energy balance

To determine emissions in a consistent and reproducible manner, prepare mass and energy balance for the production process of an NIKI product and, where applicable, for the reference product. The EIA includes all relevant mass and energy flows for a representative year passing the process limits. Figure 7 shows an example of mass and energy balance.

In the NIKI calculation model for CO_2 emission reduction, a tab has been created for establishing this. In it, you record the process inputs as mass or energy flows. Outgoing products, residual fraction, emissions released in the atmosphere and waste must be in balance with the incoming flows.

You must balance both mass flows and energy flows through the process. For all incoming and outgoing flows, indicate both mass and energy flows unless the flows have no mass (e.g. electricity) or do not contain energy (e.g. CO_2). Where necessary, explain the differences in the balance sheet, e.g. due to chemical reactions in the process.

The carbon content per mass flow is also included in the mass and energy balance. As a result, the mass and energy balance define how the flows pass between the process and other life cycle phases in terms of quantity and carbon content. This includes a distinction between biogenic and fossil carbon. This data is used to determine emissions during other life cycle phases.

Ensure that the carbon balance in the NIKI calculation model for CO_2 emission reduction is accurate. If the data is incomplete, make an accurate carbon balance by adjusting input flows and process emissions and explain your choices.

> *Example: From the BREF and additional sources, you conclude that CO_2 emissions are occurring in the process, but they have not been quantified. From the carbon balance, you derive how much fossil C must come from the process. You balance the carbon balance by including these C atoms as CO_2 in process emissions.*

The biogenic carbon content is determined based on the mass balance. The mass of biogenic carbon must be distributed evenly across all outgoing flows with carbon content in order to arrive at the proportion of biogenic carbon per stream. If you can demonstrate that the biogenic fraction in the installation is treated separately, you can assign the biogenic fraction according to detailed mass and energy balance and sub-balance.

5. Step 5: Determine the CO_2 emissions over the life cycle phases

The determination of emissions is divided into the different life cycle phases. The total emissions of the NIKI project and of the reference determine you by adding up the emissions of the life cycle phases. The total emission reduction of the NIKI project is the difference between the emissions of the reference and the NIKI project.

For all emissions, apply the source hierarchy as described in Appendix A1, and assume or substantiate where the NIKI project improves the BAT. Substantiate each emission factor used based on a good similarity of properties and the level in the hierarchy.

> *Example: You choose an emission factor for a raw material that serves as input in your process (life cycle phase inputs). The first three levels of the hierarchy do not include the relevant raw material. At Level 4 (GEMIS), you find an emission factor for the raw material, but the dates on which the emission factor is based are outdated and the quality of the raw material does not match. You therefore choose an emission factor from the next hierarchical level (e.g. Ecoinvent) and provide justification for why this statement fits better.*

5.1. Life cycle phase inputs

Inputs are all incoming energy flows and raw materials for the process. You can calculate the emissions per input using an emission factor that includes the CO_2 emissions from the input up to the process.

The emission factor for inputs also includes transport to the installation, as described in 4.1. For biogenic raw materials, waste and CCU inputs, additional calculation rules apply, which are described below in the relevant chapters.

The NIKI CO_2 emission reduction method distinguishes between raw materials and energy in the inputs, prescribing specific calculation rules:

- Raw materials: additional calculation rules for biogenic raw materials or waste as a raw material due to origin-specific emissions (see subsequent chapters);
- Energy: separate calculation rules for electricity and heat due to the origin and properties of the relevant energy system.

5.1.1. Rigid and elastic inputs

For each input, you need to determine whether it is rigid or elastic. The following definitions apply:

- Rigid input: Any input whose supply does not change in the event of a change in demand for the same input.
- Elastic input: Any input whose supply follows a change in demand for the same input by scaling up or down production capacity.

A rigid input may have negative or positive secondary effects in another product chain, causing more or less CO_2 emissions.

> *Example: A NIKI project uses municipal waste as an input. As a result, this waste is no longer incinerated to provide district heating. Waste in this scenario is a rigid input to the NIKI process. Because the waste is not incinerated, no incineration emissions arise. However, the heat previously used for district heating must now be generated differently, for example through the use of a natural gas boiler. Both the reduced incineration emissions, as well as the new emissions for heat production, must be calculated in order to determine the effect of the use of waste in the NIKI project.*

Surface water and air are by definition rigid inputs. However, this method excludes these two flows from rigid inputs because it is assumed that untreated surface water and air are functionally infinite flows.

The calculation assumes an elastic input by default. You do not need to do anything. If there is a rigid input within the NIKI process, you should consider the effects of a change in the demand of this input on processes outside the NIKI project (external process). So, the substitution effect for rigid input in that external process should be included in the calculation. You do this as follows:

1. Identify which inputs of the NIKI process are rigid.

2. Identify the external process at which the replacement effect occurs.

3. Establish whether the input to the external process has been replaced by an elastic or rigid input or a combination of these.
   Example: A NIKI project uses heat recovered from an existing process. This is a rigid input. In order to maintain this original supply of heat to other processes, a different source is used. This might be, for example, natural gas incineration (elastic input) or the incineration of residual gases (rigid input).

4. If a rigid input is an abundant residual product that does not otherwise have recovery, such as incineration without energy recovery, then you must calculate the avoided emissions based on the end-of-life rules and the customary disposal scenario for the residual product.
   Example: If an industrial waste gas flow containing carbon monoxide (CO) is derived from incineration with CO_2 emissions released into the atmosphere, the emissions attributed to that input woøø be negative and as large as the avoided CO_2 emissions.

5. If the rigid input to the external process is replaced by an elastic input, calculate the additional emissions resulting from this replacement according to the standard calculation rules for the relevant inputs.

6. If the rigid input to the external process is once again replaced by a rigid input, you also calculate the substitution effect.
   Example: In the example in step 3, the external process again uses a rigid input, for example residual gases from a chemical process used to generate process heat, to supplement the residual heat used by the NIKI project. You should then determine whether a replacement effect is produced by the use of these residual gases. For example, whether its use

leads to less production of electricity by means of a combined heat and power plant.

7. The substitution effects are included up to the point that all rigid inputs have been replaced by elastic inputs.

If the reference process uses a rigid input, but the NIKI process does not (or reduces its use), the NIKI project reduces the demand for a rigid raw material or energy flow compared to the reference. In this case, you also calculate the replacement effect: the extent to which the decrease in demand leads to changes in emissions in external processes.

5.1.2. Emissions from raw materials

To determine the emission factor for a raw material input, including fuels for energy supply in the process, the input emissions are mapped according to the source hierarchy in Appendix A1. For some of the raw materials listed below, derogations are made or additions are made to the source hierarchy.

Several emission factors may be available at the same level of the hierarchy for different processes for the same product. In this case, select the process that will be the first to scale up in the market with an increasing demand for the raw material and explain this choice.

You only include water as a raw material in the emission calculation if it comes from an external desalination, wastewater treatment or additional pumping plant. Otherwise, you may include the pre-chain emissions of water as 0. You may also include input emissions from air as 0 if no external pre-treatment takes place.

5.1.2.1. Biogenic raw materials

The biogenic raw materials must be listed in Annex IX of the RED-II Directive[9] and be certified. The sustainability statement for the purchased biomass must be issued by a certification system recognised by the EU in accordance with Article 30.4 for this scope. The certificate must apply to the relevant raw material listed in Annex IX and be drawn up in accordance with the relevant provisions of Articles 29.1–29.10.
When the decree on sustainability of biomass takes effect, the applicant must use, in relation to the biogenic raw materials that are applied for the purposes of the NIKI, a sustainability scheme accepted by the minister for the field of activity and for which the registered system applies.

For input of biogenic origin, calculate the emission factor as follows. This differs from the source hierarchy in Appendix A1.

Annexes V, Parts D and E and Annex VI Part C of REDII provide default values for cultivation, processing, transport and distribution from which you derive emission factors for biomass, biogas, biomethane, bioliquids or biofuels.

In other life cycle phases, you must also include the ‘non-CO2 emissions’ from incineration because they have an additional climate impact: non-CO2 emissions (methane, nitrous oxide and other greenhouse gases), are calculated under the ‘incineration’ life cycle if available based on the RED II emission factor for non-CO2 emissions from incineration.

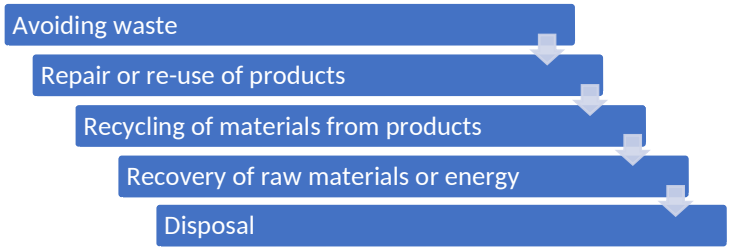
[9] Directive (EU) 2018/2001 on promoting the use of energy from renewable sources.

If no values are available in the REDII, you must still follow the source hierarchy in Appendix A1, taking into account the calculation rules regarding transport and non-CO_2 emissions.

> *Example: The emission factor for wood chips from forestry residues is 5 g CO_2/MJ if extracted from the NIKI installation within 500 km. However, it is necessary to correct this for transport and incineration. The 'transport' and non-CO_2 emissions in the RED II emission factor are, respectively, 3.0 and 0.4 g CO_2/MJ. So, the extraction and production emissions according to RED II for wood chips are then 5 - (3.0 + 0.4) = 1.6 g CO_2/MJ. For the NIKI project, the wood chips are extracted within a radius of 350 km and transported by a heavy tractor + semi-trailer. This transport has an emission factor of 88 g CO_2/tonne-kilometre. This brings transport emissions for the supply of wood chips to the NIKI installation to 88 g CO_2/(tonne-km) * 350 km = 30.8 kg CO_2/tonne. To express this per MJ of wood chips, we apply the lower calorific value of wood chips, 13 MJ/kg. It is therefore 2.4 g CO_2/MJ. The total emissions of wood chips as input then amount to 1.6 + 2.4 = 4.0 g CO_2/MJ.*

5.1.2.2. Waste and recyclate as raw materials

NIKI projects must follow the Waste Framework Directive for the use of waste as input, by which you demonstrate that 'waste' cannot be treated at a higher level. This is done on the basis of the National Waste Management Plan (LAP3).



> *Example: A plastic residue is no longer suitable for the production of new plastic. Under the Waste Framework Directive, it may be converted into a fuel or chemical raw material.*

The emissions from waste as inputs are calculated from the collection of the waste up to and including delivery to the process. Here, you must identify and calculate all emissions from collection, processing, any reprocessing and the transport of the waste. The emissions from the transport of waste materials is included in the calculation if they exceed 1% of the total incineration emissions of the relevant raw material, including biogenic emissions.

If a waste stream is only partly used for the process (e.g. due to an unusable fraction), base the emission reduction only on the part of the waste stream that is actually used.

Because waste is a rigid input, the avoided emissions from waste incineration are included in the calculation of the emissions of the input in accordance with the steps described in 6.1.1.

5.1.2.3. CO_2 captured as raw material for CCU

If you use CO_2 from an external process, the emissions will be calculated from the capture of the CO_2 up to and including delivery to the process. For the CO_2 molecules, you apply a starting value of 0 and therefore no negative emissions. The mass and energy balance also keeps track of the fraction of the CO_2 captured that is of biogenic origin. This has an effect in the end-of-life life cycle phase

For CO_2 as a raw material, you must also include the actual transport emissions in the calculation if these exceed 1% of the CO_2 transported. The transport distance measures you from the first point of collection to delivery to the process plant. Determine the emission factor of the means of transport using the source hierarchy in Appendix A1.

5.1.3. Emissions from energy flows

This chapter specifically concerns energy flows that are not fuel. The NIKI CO_2 emission reduction method considers fuels as raw materials, the extraction and production emissions of which fall under the inputs life phase and the incineration emissions under the 'incineration' life cycle phase. Other forms of energy are described below.

5.1.3.1. Electricity

As an emission factor for electricity, you should use 0.14 kg CO_2/kWh as the standard[10].

5.1.3.2. Heating and cooling

For heat and cold streams, determine whether they are rigid or elastic. For rigid thermal flows, such as residual heat, follow the rules on rigid inputs (see 5.1.1).

The emissions from heat or cold consumption depend on the local system and amount of energy used. To calculate the emissions of this energy input, determine the method of heat or cold generation.

For the fuels used, use the source hierarchy in Appendix A1 for the determination of the appropriate emission factor. In the case of heat supply by third parties, use the EU ETS heat benchmark[11] as an emission factor.

5.1.4. Accountability of emission reductions through use of other inputs

To select emission factors, always follow the source hierarchy in Appendix A1 and assume the BAT or substantiate where the NIKI process improves the BAT. If the NIKI project uses more sustainable inputs than the customary physically identical input in the market and you want to apply a lower emission factor for this, you must demonstrate that the purchase of the more sustainable input is linked to the NIKI project, that the more sustainable input is connected to one or more NIKI topics, that it is an elastic input and that the production of these inputs takes place within the EU. As proof of compliance, attach a draft contract or signed declaration

[10] In order to reflect the current and expected development of the Dutch electricity market, an emission factor (EF) of 0.14 kg CO_2 per kWh applies. This value offers a balanced approach that takes into account the progressive sustainability of electricity supply, while at the same time taking a realistic and consistent starting point for the calculation of emission reductions within the NIKI scheme.

[11] https://climate.ec.europa.eu/system/files/2021-10/policy_ets_allowances_bm_curve_factsheets_en.pdf Table "Key parameters for Heat benchmark sub-installation".

of intent to the application. At the start of production in the NIKI project, you must be able to produce a signed delivery contract. The documentation must show that the supply is foreseen for at least five years (half of the operatingphase of the NIKI project). CCS as part of the reference process is also excluded in this case (see section 2.3). For electricity, the rules set out in section 5.1.3.1.always apply.

5.2.‘Process’ life cycle phase

The ‘process’ life cycle phase includes all emissions from the production process and supporting processes. The process includes emissions originating from the incineration of raw materials, chemical or biological processes within the process limit, losses in the process, residual fractions and processing of waste from the process.

Other emissions of CO_2 greenhouse gases from the process due to maintenance, malfunctions, flaring and venting are also included in the ‘emissions’ life phase process. Use up-to-date data for this, for example from reports used for environmental permits. If it is unknown how much and which other emissions are emitted during maintenance, malfunctions and venting, 2% of total emissions from the ‘process’ life phase are added to the ‘emissions’ life phase process.

Biogenic CO_2 emissions from processes have an emission factor of 0, provided that the conditions for biogenic inputs are met.

5.2.1. Incineration of fuels as part of the process

When fuels are incinerated within the process, incineration emissions are included in the ‘process’ life phase. The incineration emissions of common fuels are specified in Appendix A1 under fuels. In addition, you must include the non-CO_2 greenhouse gas emissions (see Annex 4.8.1 of the NIKI) that originate under the expected incineration conditions.

If a biogenic raw material is burned in a process, this biogenic raw material has a CO_2 emission factor of 0, provided that the conditions for biogenic raw materials as described under 6.1.2.1 are met. Other greenhouse gases originating from the incineration of biogenic raw materials count towards the calculation.

5.2.2. CO_2 capture and utilisation as part of the process

5.2.2.1. Use of captured CO_2 (CCU)

CO_2 can be imported within a NIKI project (see section 5.1.2.3.) and then used in a product (CCU). In this case, it is considered input. With import, include the process emissions in the calculation and the CO_2 also leaves the process as a component of the product.

CO_2 capture can also be part of the process. The NIKI project produces CO_2 within the NIKI process. By capturing CO_2 from the NIKI process and using it in a product, its emissions are avoided, but not calculated. The carbon leaves the process as a component of the product.

5.2.2.2. Direct Air Capture (DAC)

If you produce CO_2 with DAC and then use it in the NIKI process (CCU), the same rules as described above apply to CCU. The process emissions are part of the NIKI process and the carbon leaves the process as part of the product.

5.2.2.3. CO_2 capture without use (CCS)

In the NIKI scheme, technologies included in a category of the 'Regulation on the designation of categories of sustainable energy production and climate transition' (SDE++) are only eligible for NIKI if their investment costs amount to less than 10% of total investment costs. This also concerns CCS. You can never combine SDE++ and NIKI for the same activities.

If you apply CCS within the NIKI because it is less than 10% of investment costs, you may consider the captured CO_2 in the end-of-life life cycle phase as long-term determined (see calculation rules in section 5.4.4.). In that case, you deviate from section 5.5. If the BAT of the reference contains CCS, you do, however, have to include this in the reference since you are also doing this with the NIKI process.

5.2.3. Direct process emissions, waste streams and residual fraction

During the production process, various outgoing flows arise: the products produced, direct process emissions, the residual fraction and waste flows.

Direct process emissions of greenhouse gases are included in the NIKI calculation model for CO_2 emission reduction with the relevant CO_2 equivalent in accordance with Annex 4.8.1 to the NIKI scheme. For fuel applications, enter the Tank-To-Wheel (TTW) emissions (see also Appendix A1).

The residual fraction are products of economic value that you have not designated as a NIKI product. For the residual fraction, the CO_2 emissions are calculated as the emissions released from their complete incineration.

For waste streams from the process, streams without economic value other than emissions to the atmosphere, the CO_2 emissions are calculated on the basis of the complete incineration of these streams. This is calculated based on the carbon content of the waste stream. See end-of-life calculation rules for the calculation method for complete incineration (section 5.4.4.).

In the BREFs of several production processes, water purification is included as a process step in which the waste water composition is shown in COD/COD units. You may disregard the emission of water treatment unless water treatment is a (main) component of the NIKI project.

5.3.'Incineration' life cycle phase

Some projects produce one or more products intended for incineration. For example, projects for the production of new transport fuels, fuel additives, solid fuels and natural gas substitutes. In that situation, the emissions from the incineration of these products fall within the 'incineration' life cycle phase (product). For transport fuels, use the source hierarchy in Appendix A1 to calculate the incineration emissions of the reference product.

Incineration of biogenic fuels is included in mass and energy balance and the emission calculation with emission factor 0. You can include emissions of other greenhouse gases from incineration (including biogenic fuels) as CO_2 equivalents using the default values in RED II in Table C. 'Disaggregated default values for biomass fuels' from Annex VI to the RED II Directive.

*Example: A NIKI project produces formic acid from hydrogen and CO_2 of partly biogenic origin (70%) to replace diesel. CO_2 is released during the use of formic acid as a transport fuel. This is treated as incineration of the product. A total of 0.96 tonnes of CO_2 is released per tonne if the formic acid is completely incinerated. Since 70% of the carbon in the product is of biogenic origin, the effective emission factor due to incineration of the NIKI product is 0.96 *30 % = 0.29 tonnes of CO_2 per tonne of formic acid.*

5.4. Life cycle phase: End of life

If the product contains carbon, you must take into account the expected emissions at the end of the product's service life. This applies to both the NIKI product and reference product. There are four different situations in which CO_2 emissions are released (or not) at the end of their service life:

- incineration or decomposition of the product,
- raw material recovery or recycling of the product,
- long-term use of the product (>50 years),
- product with biogenic carbon

The route depends on the application of the product.

If you are not familiar with the application of your product, you assume incineration based on the product's carbon content. If your product has multiple uses but you do not know the specific application, use the most common applications. See the example provided for this. If you know and can justify the application, follow the instructions in the subsections below.

Example: A producer of PET does not have an overview of direct uses of PET, but various sources consulted show that the most important products of PET are bottles (42%), trays (12%), other types of packaging (6%) and textiles (40%). Of these, only bottles are significantly recycled (42%). In net terms, 18% of PET is recycled, while the rest is incinerated.

For reference processes, you can also substantiate the most common application or assume incineration.

Incineration and decomposition are subject to the calculation rules described in 5.4.4.. The other three options are described below.

If the end-of-life cycle phase of a NIKI product and the reference product concerned are the same, you may disregard end-of-life emissions for this product. In that case, the NIKI calculation model must justify CO_2 emission reduction why the life cycle phases are the same. This is always the case if the NIKI product and reference product are physically identical.

5.4.1. End-of-life emissions from recycling

If the NIKI product is physically identical to the reference product, the starting point is that the same recycling rate applies to the NIKI product and the reference product. In this case, you may disregard the end-of-life emissions.

If the NIKI product is not physically identical to the reference product, you must substantiate the (new) recycling rate based on public recycling statistics or scientific research results (publications in peer-reviewed journals or reports from public bodies, e.g. the EC Joint Research Centre) and demonstrate that processing capacity/structure for this product is available in the market.

The end-of-life emission factor for recycled fractions is 0. If at least 90% of the produced material is recycled, the end-of-life emission factor for the entire product is 0.

If there is a combination of recycling (< 90%) and dissolution, deposit or energy recovery, the emission is for the end-of-life phase. Base the emission factor on the carbon fraction in the product that is not recycled.

> *Example: A project produces recyclable plastic bottles that replace conventional non-recyclable plastic bottles. The products are therefore not physically identical. The applicant provides evidence that the typical recycling rate of the material produced is 85% in its region. A total of 15% will be incinerated. The end-of-life emission factor of the recycled fraction is 0. For the incinerated fraction of 15%, the end-of-life emission factor is the complete incineration of the carbon content of the bottle.*

The avoidance of primary material use through recycling does not give rise to additional emission reductions in the calculation methodology.

5.4.2. End-of-life emissions with long-term use

A product with a service life of more than 50 years must capture the carbon in the product and avoid CO_2 emissions. In this case, you may calculate the end-of-life emissions using the halved[12] value of the emission factor for incineration.

It is your responsibility to demonstrate that it is reasonable to assume that the carbon will be stored for at least 50 years. You must be consistent in your allegations of long-term use of both the NIKI product and reference product. If the NIKI product and the reference product are physically identical, it is assumed that the long-term carbon use will be identical. In this case, both emissions are mutually exclusive and you may disregard the end-of-life emissions.

5.4.3. End-of-life of biogenic substances

A product of biogenic origin has an emission factor for CO_2 emissions at end-of-life of 0 if the carbon is completely converted into CO_2. However, you must apply a correction factor for 'non-CO_2' emissions arising from the incineration of biogenic substances, as indicated in RED II, Annex V in Table C 'Disaggregated default values for biomass fuels' on page 114 for liquid and solid substances and page 121 for biomethane. If products not only contain biogenic carbon, but also fossil carbon or carbon from a CCU process, determine the CO_2 emission pro rata for the percentage of non-biogenic carbon, as shown in the carbon balance.

[12] The halving of the end-of-life emissions is in accordance with the requirements of Directive 2009/31/EC, which states that products may be expected to have a shortened useful life in some cases.

With the long-term capture of biogenic carbon, calculate a negative CO_2 emission: -50% of the total incineration emissions. For a (partially) recycled product of biogenic origin, you also calculate an emission factor of -50 % of the emissions in complete incineration for the biogenic and recycled part. In a recycled product stream, part of the carbon is captured long-term, storing (biogenic) carbon from the atmosphere.

> *Example: A NIKI project produces bio-PET bottles to replace conventional fossil PET bottles. Both types of bottles are recyclable and the applicant demonstrates that the recycling rate in the given region exceeds 90%. An emission of 0 is included within the end-of-life of the reference product, while negative emission is included within the end-of-life framework of the NIKI product equal to 50 % of the full incineration emissions for the carbon in the PET.*

5.4.4. Calculation rules for end of life

You apply the following calculation rules for 'end of life' emissions for final products:

Table 1: Calculation rules for the end of life of products.

End of life case	Calculation of CO_2 emissions in kg per kg of product
Fossil carbon without recycling	Emission/kg = $\%C_{fossil}$ x 44 / 12; when fully converted to CO_2
Biogenic carbon without recycling	Emissions/kg = 0; on full conversion to CO_2
Fossil carbon with partial recycling	Emissions/kg = (1-%Rrecycling)* $\%C_{fossil}$ x 44 / 12; on complete conversion to CO_2 and when %Rrecycling <=90 %
Fossil carbon with recycling	Emission/kg = 0; when %Rrecycling > 90%
Biogenic carbon with recycling	Emission/kg = -0.5 x $\%C_{organic}$ x 44 / 12; when %Rrecycling > 90%
Fossil carbon with long-term capture	Emission/kg = 0.5 x $\%C_{fossil}$ x 44 / 12; with long-term capture.
Biogenic carbon with long-term capture	Emission/kg = -0.5 x % $C_{organic}$ x 44 / 12; with long-term capture.
No CO_2 emissions	See (relative) emission factors in Appendix 3

By which the following definitions apply:

- %R recycling The percentage of product that is recycled
- $\%C_{fossil}$: The percentage of carbon of fossil origin present in the product
- $\%C_{organic}$: The percentage of carbon of biogenic origin present in the product
- 44/12: The amount of CO_2 (in kg) produced per kg of carbon in the product.

When using a NIKI product, within its own production site, as an input to another production process, take into account the carbon content in the product. Calculation rules for biogenic carbon apply, but because there is no use phase for this product, the calculation rules for recycling naturally do not apply.

5.5. Emissions excluded from the calculation

Certain emissions are excluded from the calculation due to a legal framework or because these emissions are not significant for the total calculation. The following emissions are excluded by default:

- Emissions of capital goods (production means, buildings, infrastructure for the product) during construction and demolition;
- Biogenic CO_2 emissions from incineration , oxidation, degradation or other processes, provided that RED II sustainability requirements are met. Other greenhouse gases are not excluded;
- Emissions captured and stored by CCS installation;
- Emissions from indirect land consumption change (iLUC), LULUC and carbon sequestering;
- Emissions from commuting, business travel and waste production from outside the process;
- Emissions from water treatment, unless the purification process is a core part of the NIKI project.

Note: *Goods that are consumed during the NIKI project and are no longer usable at the end of the project duration are considered raw materials. For example, spent catalysts from the production process.*

6. Step 6: Calculation of total CO_2 emission reduction

The assessment of a NIKI project requires the absolute reduction in CO_2 emissions over its life cycle. This is calculated as follows in the NIKI calculation model for CO_2 emission reduction.

The **absolute CO_2 emission reduction of the life cycle emissions** of the NIKI project results from the difference between the emissions of the NIKI product and the (corrected) reference product multiplied by the normalised production level over the operating phase:

$$\Delta CO_{2¿} = (CO_{2ref} - CO_{2NIKI}) ¿$$

By which:
$CO2_{NIKI}$ = CO_2 emission of the NIKI project over the total of the NIKI project and
$CO2_{ref}$ = sum of CO_2 emissions of the reference

$$CO_{2NIKI} = (CO_{2inputs} + CO_{2process} + CO_{2incineration} + CO_{2eol}) * full\,load_{hours}$$

and

$$CO_{2ref} = \sum_{1}^{P} (CO_{2inputs,P} + CO_{2process,P} + CO_{2incineration,P} + CO_{2eol,P}) * ¿\, full\,load_{hours} ¿$$

By which P is the relevant reference process.

- Full load hours are the amount of hours the installation is expected to be operational during the NIKI project

$$full\,load_{hours} = \sum_{1}^{Y=10} (Full\,load_{hours_Y})$$

$Y = year\ of\ NIKI\ project$

- CO_2 emissions released from the extraction and production of raw materials and energy for the process.

$$CO_{2inputs} = \sum_{1}^{x} (\dot{m}_{raw\ material,x} * EF_{raw\ material,x}) + \sum_{1}^{x} (\dot{\epsilon}_{energy,x} * EF_{energy,x})$$

- CO_2 emissions from the process or the processing of residual and waste from the process

$$CO_{2process} = \sum_{1}^{x} CO_{2emissions\,into\,atmosphere,x} + \sum_{1}^{x} CO_{2residual\,fraction,x} + \sum_{1}^{x} CO_{2waste,x}$$

- CO_2 emissions released from the complete incineration of the fuel produced.

$$CO_{2incineration} = \sum_{1}^{x} \left(\dot{m}_{fuel,x} * EF_{fuel,x} \right)$$

- CO_2 emissions released or avoided by processing the product at the end of its life, by which the nature of the product (for example: biogenic or fossil) is the determining factor[13].

$$CO_{2eol} = \sum_{1}^{x} \left(\dot{m}_{product,x} * EF_{eol\,of\,product,x} \right)$$

By which $\dot{m}_x$ is the mass or energy quantity of the relevant mass or energy flow x, per hour, and EF_x the relevant emission factor.

7. Step 7: Check for negative secondary effects

Transport and use of NIKI products are not part of the system limit in the NIKI CO_2 emission reduction method. Changes in emissions in these life cycle phases are therefore not part of the emission reduction calculation. However, in order to prevent undesirable effects on society, you still need to check at this stage whether negative secondary effects occur in these phases. This is the case when the replacement of conventional products by NIKI products results in additional emissions during transport and use of the NIKI products. These additional emissions may not exceed the total emission reduction of the NIKI project, calculated in step 6. If this is the case, the application will be rejected.

If the NIKI product is physically identical to the reference product and the reference product will replace one-on-one in the market, no negative secondary effects occur. In this case, you do not need to provide further substantiation for this product.

Negative secondary effects may arise, for example, if a NIKI product is not physically identical to the reference product.

> *Example: An applicant for a NIKI project produces a biological alternative to rock wool as building insulation. A total of 10% more volume of this product is needed to achieve the same insulation value as with rock wool. As a result, the insulation layer (cavity) must be wider and more insulation material and more bricks are needed. The additional emissions from the production and transport of additional bricks and the additional transport emissions from additional space taken up by the NIKI product must be calculated.*

[13] Based on LAP3 waste processing and calculation rules.

Deviations in the required amount of NIKI product are accounted for by applying the correction factor, as described in Step 2: determine reference. However, emissions during transport and use are not part of this and must therefore be assessed in this step. You do this as follows:

1. Check whether there are changes in emissions during the life cycle phases of transport and use due to the application of the NIKI product to replace the reference product.
2. If this is not the case: substructure in the NIKI calculation model CO_2 emission reduction under step 7 that no secondary effects occur.
3. If there is a change in emissions: describe whether this is positive (less emissions compared to the reference) or negative (more emissions compared to the reference) secondary effects. Positive secondary effects are to be cited, but do not need to be further substantiated or quantified.
4. If negative secondary effects occur, make an approximate calculation, showing whether or not this increase in emissions exceeds the total emission reduction achieved by the NIKI project. If this calculation indicates that the negative secondary effects are 50% or more of the total emission reduction achieved by the NIKI project, you must make a detailed calculation to make it plausible that the negative secondary effects do not exceed the total emission reduction.

Appendix

A1 Hierarchy of emission factors

The hierarchy of emission factors is broken down because, per life cycle phase, certain CO_2 emissions are or are not in scope for the relevant phase.

- For the ‘inputs’ life cycle phase, a hierarchy of sources for emission factors has been drawn up, representing the chain emissions from extraction up to and including production of the input. This concerns the ‘Well-to-Tank’ emissions indicated in the sources.
- In addition, a hierarchy has been established for transport. This is what are known as ‘well-to-wheel’ emissions.
- For the ‘process’ and ‘incineration of product’ life cycle phases, a hierarchy for incineration emissions from fuels has been included. Sources of ‘Tank-to-Wheel’ emission factors have been ranked by quality.

For all sources, the most recently published version should be used.

Inputs (pre-chain – Scopes 2 and 3 upstream):

1. **Rijkswaterstaat CO2emissiefactoren.nl**
   For fuels and energy as inputs (Well-to-Tank, WTT)
   https://co2emissiefactoren.nl/factoren/2024/10/brandstoffen-energieopwekking/

   An emission factor has been calculated for a number of products according to the NIKI CO_2 emission reduction method. If you use one of these products as an input, use the relevant WTT emission factor. The list can be found on the RVO website from the date of publication of the NIKI scheme.

2. **JEC Well-To-Wheels report v5 well-to-tank**

(WTT) production emission factors for various raw materials in biofuels production chain:
https://publications.jrc.ec.europa.eu/repository/handle/JRC121213

3. **JRC Definition of input data to assess GHG default emissions from biofuels in EU legislation – version 1d**
   (WTT) production emission factors for various raw materials in biofuels production chain:
   https://publications.jrc.ec.europa.eu/repository/handle/JRC115952
4. **Public or commercial database emission factor**, such as:
   - GEMIS database
     For industrial raw materials:
     https://www.probas.umweltbundesamt.de/en/datenbank/#/
   - ECOINVENT database 'cut-off system model' – (accessible via SimaPro, GaBi and other applications)
   - E3 database, etc.
5. **Peer-reviewed publications** including substantiation of why the publication is applicable
6. **Detailed documentation of own calculations and estimates**
7. **'Grey literature'**: non-tested sources such as commercial literature and websites

Transport (means of transport – WTW):

1. **STREAM Freight transport** (most recent)
   https://ce.nl/publicaties/stream-goederenvervoer-2020/ (Ch 3 - WTW)
2. **JRC v5 WTW**:
   https://publications.jrc.ec.europa.eu/repository/handle/JRC121213 (WTW)
3. **Commercial emission factor databases**, such as ECOINVENT database 'cut-off system model' – (accessible via SimaPro, GaBi and other applications), E3 database, etc.
4. **Peer-reviewed publications** including an explanation of why the publication is applicable and calculations of the LCA and GHG emissions for the production pre-chain of the input.
5. **Detailed documentation of own calculations and estimates**

Fuels (Scope 1 – incineration emissions / TTW):

1. **Rijkswaterstaat co2emissiefactoren.nl**
   For incineration emissions of fuels and energy (Tank-to-Wheel, TTW)
   https://co2emissiefactoren.nl/factoren/2024/10/brandstoffen-energieopwekking/
2. **RVO energy carrier list** (most recent year)
   https://www.rvo.nl/sites/default/files/2022-05/Nederlandse%20energiedragerlijst%20versie%20januari_2022_definitief.pdf
3. **Peer-reviewed publications** including an explanation of why the publication is applicable and calculations of the LCA and GHG emissions for the production pre-chain of the input
4. **Detailed documentation of own calculations and estimates**

In assessing your application, the sources for the emission factor that you use will be considered. If you rely too much on low-ranking sources without additional justification for this, this may be a ground to reject the application.

Annex 4.13.3 to Article 4.13.1 of the Regulation on national EZK and LNV subsidies

1. Introduction

1.1 Introduction of calculation method for NIKI subsidy calculation

In the government vision of the basic industry 2050, a commitment to 'flagship' projects was announced for the first time, with the cabinet indicating that the Netherlands must be able to support larger scale-up of industrial technologies more effectively. More specifically, this concerns innovative technologies to be widely rolled out in industry, such as for green chemistry or electrification. Furthermore, the coalition agreement of 15 December 2021 includes the target that the Netherlands should be fully climate-neutral by 2050, which is in line with the identical ambition of the European Union.
The NIKI subsidy module specifically aims to support projects in the Netherlands in which an innovative technology is used on a commercial scale and which lead to a significant CO_2 emission reduction. Through the NIKI, subsidies are available for technologies with a high potential for CO_2 emission reduction, the scaling-up of which does not fit within existing subsidy schemes. In this way, the NIKI is complementary to the existing instruments and investments in the scaling up of important industrial climate projects are encouraged.
This document describes the NIKI calculation method and serves as instructions for applying the method correctly. In addition to this document, a 'NIKI subsidy calculation model' will be published for the preparation of NIKI applications to ensure a consistent submission method. This calculation model will be published on the RVO website at the same time as the publication of the Order in the Government Gazette. You must submit the completed calculation model with your application.
This calculation method for the subsidy calculation of the NIKI describes the steps to be followed by the applicant to calculate the subsidy. The applicant must apply the calculation method at different stages of the NIKI project, as shown in the table below.[14]

Where?	How?	What and why?
Application	Based on expected costs and revenues up to and including the end of service life. Support through a review of future-oriented financial information from the accountant.	The applicant must submit, inter alia: • subsidy request in euros; • project budget with calculation of total eligible costs, with milestones with budget for the investment phase; • bid (subsidy intensity offered) in euros per tonne of avoided CO_2-eq; and • CO_2 calculation using NIKI emission reduction method.
Subsidy award		The decision must contain, inter alia: • subsidy granted in euros; • approved project budget; • submitted bid in subsidy per tonne of avoided CO_2-eq; • WACC used; • production volume used; • tonnes of avoided CO_2-eq per tonne of NIKI

[14] In all cases where the content of this manual deviates from the official regulation text and the accompanying explanatory note, the regulation text and explanatory note take precedence.

		• product(s); • obligation with regard to the audit report on the production volume achieved
End of investment phase	Based on the actual investment costs and updated estimates of operating costs and revenues for the period up to and including the end of the economic life.	First calculation of the annual advance for the operating phase and of possible claw-back.
At the end of each year of the operating phase	Based on the actual investment costs, actual operating costs, revenues and production volume for the underlying project years, plus updated estimates for the remaining period up to and including the end of the economic life. Support after the 5th year of operating phase by the accountant's report of factual findings.	These recalculations serve to avoid overstimulation and to avoid recovery of overpayment of the advance. A possible claw-back is therefore taken into account in the calculation.
Essential change or delay in project implementation	Based on the actual investment costs, actual operating costs, revenues and production volume for the underlying project years, plus updated estimates for the remaining period up to and including the end of the economic life. If necessary, a recalculation of the estimated CO_2 emission reduction will also be carried out.	Essential changes or delays in the project may lead to a reassessment of the project, adjustment of the annual advance payments and/or recovery of advance payments already made.
Subsidy calculation (10 years after start of operating phase)	Based on the actual investment costs, actual operating costs, revenues and production volume for the underlying project years. Support by means of an accountant's audit report.	Determination of subsidy and use of claw-back where applicable.

The NIKI is a tender scheme. Applications that are evaluated positively for their feasibility will be ranked exclusively on the basis of the submitted bid in euros per tonne of avoided CO_2. This method is a substantive implementation of the condition in the CEAG that in tender procedures, the ranking criterion must have a direct relationship with the policy objective to be pursued by the aid measure (for the NIKI: significant CO_2 emission reduction).

It is important to emphasise that for applications that are ranked, the bid in euros per tonne of avoided CO_2 is not only essential in the ranking, but also that the bid itself is not assessed and therefore cannot be changed either. However, the bid, or more precisely, its feasibility, must be substantiated by calculating the required subsidy amount using the calculation method described in this document. The applicant should use the same production volume and expected CO_2 emission reduction as in the calculations using the NIKI CO_2 reduction method. However, the *requested* subsidy should be calculated by multiplying the bid with the expected CO_2 emission reduction. An excessive difference between the required subsidy and requested subsidy may be seen as too risky financially, especially if it is unclear how the difference between the bid and required subsidy will be handled. The application will then be rejected on insufficient justification of (financial) feasibility.

The subsidy received for projects is based on a combination of investment costs (CAPEX) and operating costs (OPEX). The calculation method starts by determining the net present value (NPV) of the cash flows, with all future revenues and expenses being discounted to the present date. By dividing this NPV by the production volume during the project, an NPV per unit of product is obtained. This is a measure of the average current net production costs per unit of product. These production costs are then compared with the future market prices of comparable products.

The payment of the advance amounts may distinguish between the investment phase and operating phase. The NIKI description explains both phases in more detail. For the operating phase in particular, the advances during a NIKI project are adjusted several times based on the recalculation of the necessary subsidy. These recalculations serve to avoid overstimulation and to avoid recovery of too many advances as possible. It should be noted that this is only a recalculation of the advance and not an interim adjustment of the subsidy. It will not be finalised until

10 years after the start of the operating phase of the project (end of NIKI project). The subsidy amount on determination may not exceed the subsidy amount granted at the application stage. Consequently, no increase can take place.

1.2 Reading guide and contents

Chapter 2 discusses in detail the calculation method and steps needed to apply it. Chapter 3 describes the phases of the NIKI project in which the undertaking (the applicant and recipient of the NIKI subsidy) must use the calculation method and how this contributes to accountability and reporting of the results achieved by the NIKI project.

Contents

1.3 Glossary

Concept	Explanatory note
Required subsidy	Based on all cost and revenue data, the amount that the investment in the NIKI installation yields a return equal to the WACC.
Claw-back	The mechanism for preventing over-subsidisation, by which a reduction of the subsidy granted is divided between the subsidy recipient and the subsidy provider.
Economic life	The economic life of an asset refers to the period during which the asset is expected to generate economic value before it is no longer cost-effective to use.
Requested subsidy	The amount calculated by the applicant by multiplying the bid by the avoided CO_2 emission.
Investment phase	The investment phase of a NIKI project includes the investment activities. The investment phase starts when the first binding obligation is entered into that makes an investment irreversible and runs until the start of the operating phase and lasts up to four years.

Investment costs (CAPEX)	All primary expenditures that together comprise the total investment costs necessary for the completion of the investment phase and start of the operating phase of the NIKI project incurred during the investment phase.
Levelized Cost of Production (LCOP)	All expenditures involved in the production of a product, including operational and maintenance costs, fuel costs (if applicable) and any other relevant costs. These costs are then divided by the total quantity of product produced over the economic life of the project.
Net Present Value (NPV)	All future income and expenses that have been discounted to the present.
Operating phase	The operating phase of an NIKI project includes operational activities. The operating phase of a NIKI project starts at the time the NIKI installation becomes operational and normally lasts ten years. The operating phase of the NIKI installation lasts longer, i.e. until the end of its economic life.
Operating costs (OPEX)	All expenditures essential for the installation and operationalisation of the NIKI installation(s). This includes the following categories: Fixed OPEX, variable OPEX and CAPEX maintenance costs.
Technical service life	The maximum period during which an installation is able to function properly. This period includes the time from when it is put into operation to when the asset is no longer usable due to wear, aging of materials or technological obsolescence.
Subsidy granted	The amount promised to the applicant in the grant decision for the implementation of their NIKI project.
Subsidy determined	The amount to which the applicant is definitively entitled by way of the subsidy determination for the NIKI project.

2. Calculation method for NIKI subsidy

This chapter provides a description of the calculation method to be used by the applicant to calculate the required subsidy in the subsidy application during the NIKI project and in the application for subsidy determination. The steps necessary to perform the calculations are described, starting with the formula for the required subsidy and the steps included in Section 2.3. The aim is to provide the applicant with a thorough understanding of both the procedural aspects and key variables within the model.

2.1 Calculation model based on cash flows

The NIKI scheme is bound by a legal framework that only includes the concepts of costs and benefits. However, as described in Section 1.1, the 'NIKI subsidy calculation model' must be completed on a cash flow basis. Where this manual uses the terms 'costs and benefits', this refers to expenses and revenues, respectively.

2.2 *Calculation*

The model is based on the customary principles of business economics, by which future cash flows are discounted based on the WACC and the return is calculated over the entire economic life of the investment (the NIKI installation). The investments are therefore fully accounted for without taking these expenses into account. However, the cash flows during the operating phase are discounted, by which the net annual costs are reduced by the sale proceeds of the NIKI products (benefits). As a formula:

$$Required\ subsidy(€) = CAPEX + \sum_{n}^{N} \frac{OPEX}{(1+WACC)^n} - \sum_{n}^{N} \frac{€_{market} * Units\ produced}{(1+WACC)^n}$$

- CAPEX: investment costs
- OPEX: operating costs minus any operational benefits
- WACC: Weighted Average Cost of Capital for the company
- n: the relevant operational year
- N: economic life of the NIKI installation
- $€_{market}$: weighted average market price of the product in year n.
- Units produced: production volume in year n.

The calculation must include all amounts exclusive of VAT, unless the applicant is unable to account for VAT. Corporate income tax to be paid (see Section 2.3, Step 4), which is attributable to the NIKI project is part of the operating costs. All costs must be 'technically necessary and exclusively serviceable' to the NIKI installation(s), the operationalisation of NIKI installation(s) and the operation of the NIKI installation(s), as also applicable in the Energy Investment Allowance (EIA). If the costs are not only serviceable to the NIKI project, the applicant must take the costs into account if and to the extent that these refer to the NIKI project. The allocation mechanism applied must be properly justified in the application.

During the operating period of the NIKI project, there must not be a difference in quantities (in/output) between the calculation method and the quantities with which the CO_2 calculation was carried out for elements that occur in both methods. A possible difference in quantities between a NIKI product and a reference product must also be taken into account if these products are not physically identical.

2.3 *Step-by-step plan for calculation*

The calculation method consists of seven steps. Each of these seven steps is explained in more detail below.

Economic value	Determine the total economic life
CAPEX	Determine the investment costs (CAPEX)
Turnover	Calculate the turnover over the total economic life
OPEX	Determine the operating costs (OPEX) for the operating phase
Operational benefits	Reduce the operating costs (OPEX) with operational benefits
WACC	Discount the operating costs and turnover over the entire economic life using the WACC
European subsidies	Reduce the required subsidy amount with European subsidies

Step 1 – Total economic life

The NIKI provides subsidies for investment activities and for operating activities, the latter during the first 10 years of operation of the NIKI installation. In the calculation method, the required subsidy amount must be calculated over the entire economic life of the NIKI installation and the subsidy will be granted during the first 10 years of the operating phase. The total economic life is at least 20 years. The method of determining the operating costs after 10 years to the end of economic life is described in Step 4 'Determine the operating costs (OPEX) for the operating phase'. After 10 years of operation, a recalculation of the subsidy amount will take place on the basis of costs and revenues actually incurred and will follow a determination. The economic life of a NIKI installation must be longer than the exploitation phase of 10 years of the NIKI project. It is important that when submitting the bid, the applicant demonstrates that the NIKI installation will remain operational after year 10 and will be able to operate profitably without a subsidy after 10 years. This means that positive operating cash flows are achieved annually without a subsidy.

Step 2 – Determine the investment costs (CAPEX)

Introduction

In step 2, the investment costs (CAPEX) are calculated for a NIKI project. The investment costs must be 'technically necessary and exclusively serviceable' to the NIKI installation(s) and the operationalisation of NIKI installations, as also applicable in the EIA. If the costs are not only serviceable to the NIKI project, the applicant must consider the costs to the extent that they relate to the NIKI project. NIKI installations are those installations with which the environmental benefit in the NIKI project is achieved.

In this step, the investment costs are explained in more detail. Costs for replacing or repairing installation(s) should not be included in the investment phase. These costs are part of the operating costs as included in step 4.

The investment phase of a NIKI project starts no later than 12 months after the granting of the decision and no earlier than the moment when the first binding obligation is entered into that makes an investment irreversible, for example the final order of equipment or the start of construction. The subsidy will be paid out in this period on the basis of a milestone method. When submitting the subsidy application, the applicant may indicate at which points in the development process the investment aid is required. This gives the applicant the opportunity to optimise the investment process with the certainty that the investment aid will be received at the right times. Each milestone period must be concluded with a concrete identifiable result of activities carried out in the project. The milestones should be substantiated in the NIKI project plan. All eligible costs incurred in the run-up to the result to be achieved should be included in this milestone. The applicant must formulate a minimum of three and a maximum of five milestones for the NIKI project. A milestone cannot be the granting of a subsidy decision.

The total of the advance in the investment phase may not exceed the lowest of the following amounts calculated on application with the NIKI calculation method:

- 40% of the requested subsidy; or
- The total investment costs when submitting the application.

At the end of the investment period, the applicant recalculates the required subsidy. This calculation takes into account the actual investment costs and must also provide new estimates for the operating phase.

Purchase costs

Calculate the total purchase costs of the installations and machinery for the execution of the project. This includes payments to third parties for engineering costs after the grant is awarded, preparing the NIKI installation(s) and ensuring that the installation(s) is/are ready for use.

The following costs may be relevant for this (this list is not exhaustive).

Purchase price of installation and machinery: This includes the costs of purchasing all physical assets for the NIKI project.

Engineering and design after FID: Costs incurred for engineering services after the award of the subsidy. This includes the design and optimisation of the NIKI installation(s), as well as any adjustments necessary to meet specific project requirements.

Site preparation costs: Costs of preparing the site where the NIKI installation(s) is/are to be installed. This may include earthworks, foundations and the layout of the site to make it suitable for installation and use. Costs of demolishing existing installations are excluded.

Applicants can demonstrate the above costs by means of, for example, quotes, purchase orders and supplier invoices, depending on the phase. The documentation must include specifications and prices for each item, as well as the corresponding proof of payment.

The following costs are implicitly not considered investment costs:

- **Costs for existing installations:** unless this concerns costs for adapting these installations to make them suitable for the project.
- **Operating costs (OPEX)**: Ongoing costs for the operation of the installation(s), such as energy consumption, routine maintenance, repairs and labour costs. See step 4 for this.
- **Training of personnel (outside of operation context):** Costs of training personnel not directly related to putting the new installation(s) into operation.
- **Research and development (R&D):** Costs incurred for research and development that are not directly linked to the development or improvement of the specific NIKI installation(s) or machinery for the project. This could include optimisation of other systems in business operations.
- **Marketing and sales expenses:** Expenses for marketing activities, market research and sales activities that do not directly contribute to the purchase, installation or putting into operation of the physical assets.
- **Financing costs:** Interest, costs of closing loans and other financial expenditures.

Implementation costs:

Labour costs and externally hired personnel: labour costs for own employees and externally hired personnel necessary for the installation of the NIKI installation(s) must be based on actual costs.

Cost of cranes, scaffolding and temporary facilities: costs of cranes, scaffolding, temporary facilities for the NIKI project.

Investments in infrastructure: investments in infrastructure for the execution of the NIKI project. The following costs are excluded: costs related to environmental impact, costs related to land use and environmental impact caused by parties other than the applicant. The value of infrastructure investments attributable to the NIKI project is part of the CAPEX. This amount is determined based on the ratio of the economic life of the NIKI installation to the total accounting depreciation period of the investments in the relevant infrastructure, to the extent that the accounting depreciation period exceeds the economic life.
Example: There is an infrastructure investment of EUR 500,000. A total depreciation period of 50 years is used with an economic life of 25 years. The CAPEX should be increased as follows: (25/50) * €500,000 = €250,000. This amount is not discounted.
Connecting external connections: Calculate the costs related to connecting to external connections for the NIKI project. These investments are included in the calculation method in the same way as investments in infrastructure (see point above).
Examples:

- **Electricity:** Some examples here would be a new connection to the grid or expansion of the existing connection. Any costs associated with this should be considered when determining the relevant costs, insofar as they have not been incurred before the NIKI application is submitted.

- **CO2**: In cases in which CO2 infrastructure is involved, the costs related to connecting to the main infrastructure may be included in the relevant cost calculation.

- **Heating**: As with CO2, in cases involving heating infrastructure, investments in infrastructure related to connecting to the main infrastructure can be included.

- **Circular or bio-based raw materials**: costs related to pre-treatment, infrastructure and utilities may be considered in the relevant cost calculation.

- **Hydrogen:** Comparable to Heating and CO2.

- **Other**: Additional costs compared to the most used fossil reference, e.g. naphtha compared to a fossil naphthol.

- **Installation and commissioning**: Costs of installing the NIKI equipment and NIKI machines and making them operational. This may also include training staff so that they can operate and maintain the equipment correctly. Note: as indicated, these are only costs that are technically necessary and exclusive to the execution of the project.

Adaptation costs

The modification of installations to make them suitable for the implementation of the NIKI project is attributable to investment costs.

Regular maintenance costs of NIKI installations is discussed under step 4. These expenditures strengthen the operational capacity or efficiency of the NIKI installation(s) and are therefore considered investments that increase the fundamental value of the NIKI installation(s).

The applicant must take the following steps to calculate the necessary adjustment costs:

1) The maintenance costs during the investment phase if there is a need to replace capital assets that are essential for the continued operation of the NIKI installation(s) in the current state and are not part of regular maintenance.

2) In addition, the purchase and installation costs for new materials must be calculated and are not part of regular maintenance.

Building costs:

This involves determining the purchase costs of business premises for the execution of the NIKI project. The following costs are excluded: costs related to environmental effects, costs related to land use and environmental impact caused by parties other than the applicant.
These costs are a fundamental part of the initial investments, as they lay the physical foundation on which the project is built and developed. In the event that business premises are used for more than just a NIKI project, the applicant must demonstrate whether and which part of these are attributable to the NIKI project. The costs should be taken into account comparatively. The focus is on identifying and calculating the total costs associated with the purchase of these assets. The value of investments in buildings attributable to the NIKI project is part of the CAPEX. The amount of this sum is determined by the ratio of the economic life of the NIKI installation to the total accounting depreciation period of the investments in the building in question, to the extent that the accounting depreciation period exceeds the economic life.
Example: There is an investment in a building of EUR 500,000. A total depreciation period of 50 years is used with an economic life of 25 years. The CAPEX should be increased as follows: (25/50) * €500,000 = €250,000. This amount is not discounted.

Excluded investment costs

When carefully calculating the investment costs for a NIKI project, it is essential to explicitly take into account the fact that certain costs must be excluded from this calculation. The follow costs are not part of investment costs.

Costs, investments and purchases made before the date of submission of the NIKI application: Costs, investments and purchases made before the NIKI application is submitted fall into a specific category that has important implications for the application process and funding possibilities. These expenses can range from preliminary studies and designs to the purchase of equipment or even initial construction. Although these costs may have been essential for the preparation and planning of the project, they should not be included in the calculation of investment costs.

Land costs: Costs for the purchase of land are excluded.

Maintenance costs: These can be included as operating costs. See step 3 on the calculation of operating costs.

Costs to terminate existing activities or production capacity: Costs related to the termination of existing activities or production capacity aimed at reducing or stopping business processes or facilities are excluded from the investment costs. This may include, inter alia, the costs of phasing out obsolete equipment, closure of factories or production lines and the layoff of staff. Demolition costs for existing installations are excluded.

Costs of goodwill, intellectual property and licences: Costs for, for example, maintaining IP rights are not allowed, but the application for a patent, trademark right or intellectual property can be included.

Residual value of the NIKI installation: In the 'NIKI subsidy calculation model', the residual value of the NIKI installation at the end of the economic life (at least 20 years) is equated to EUR 0.

Step 3 – Determine the turnover

A reference product must be determined for each NIKI product according to the instructions in the CO2 calculation method. Market prices must be increased for the entire economic life of the NIKI installation(s). Both actual results and projections of reference market prices are part of the accountant's audit.

Data on the market price EUR $_{market}$ of products

Market price data is assumed to be known to the applicants, given their current activities in the market or markets they will enter after completing the NIKI project. As a result, they know the market prices of the products with which they compete or which they will replace. In many cases, applicants will want to improve their own existing production facilities and are therefore already well aware of costs and market prices. In this context, the market price refers to the weighted average market price relevant for the calculation of the subsidy.

Market price data is available for most sectors. For products with a clear market price applicable in Member States, applicants may choose to specify a fixed source for the reference price. The price of most products will vary from country to country, so applicants must propose at least the most appropriate reference. In general, historical information is often available, as well as limited spot and futures prices. For example, pricing for specialty chemicals is relatively transparent, but applicants are likely to have already carried out activities in the relevant sector or extensive research to enter new markets.

Applicants must take into account the possibility that the products produced can be sold at a green premium compared to the existing 'grey' alternatives. The achievable market sales price of the new product produced by the applicant is the reference price. It is essential that applicants clearly explain the reason for the 'green' price premium or lack thereof and provide evidence that such a premium is possible (e.g. by providing details of a purchase agreement or other verifiable means). If a price premium is expected only in a limited number of years, this must be clearly explained by the applicant. There must also be consistency between the product price forecast in the applicant's financial model and the project product price used to determine relevant costs.

Units produced

The units produced represent the output per year over the economic life of the NIKI installation(s). The quantities must correspond to the figures in the calculation of the CO_2 emission reduction.

Step 4 – Determine the operating costs (OPEX)

In step 4, the operating costs are calculated over the economic life of the NIKI installation(s) (at least 20 years). The following four categories are distinguished:

- fixed operating costs;

- variable operating costs;
- maintenance costs; and
- corporate tax and the Energy Investment Allowance (EIA).

It is important that these are necessary for cost reasons and are exclusive to the NIKI project. As mentioned above, these are cash flows, the expected expenses must be included in the 'NIKI subsidy calculation model' at the time they occur. Within the framework of the NIKI project, fixed operating costs included must be explicitly related to the activities and objectives of the project. This means that only those costs that arise directly from or are necessary for the implementation of the NIKI project are eligible. The distinction between general operating costs and project-specific operating costs requires careful administration, transparent allocation mechanism and planning to ensure that the funding criteria are met. The allocation mechanism must be substantiated in the application.

When calculating operating costs, the applicant must use the following price projections in euros (€):

Year	Natural gas	Electricity	Coal	Oil	ETS1	ETS2
Unit	**cent/m3**	**EUR/MWh**	**EUR/tonne**	**EUR/barrel**	**EUR/tonne**	**EUR/tonne**
2025	28.17	81.94	73.58	66.51	82.60	
2026	25.83	77.80	70.17	60.87	87.10	
2027	25.06	75.51	66.75	66.66	91.90	30.00
2028	24.28	71.90	63.34	72.45	97.00	50.00
2029	23.51	67.91	59.92	78.24	102.30	55.00
2030	22.74	65.28	56.51	84.03	107.90	55.00
2031	22.77	60.66	55.82	83.93	113.90	55.00
2032	22.80	60.44	55.12	83.83	120.10	55.00
2033	22.84	60.33	54.43	83.73	126.70	55.00
2034	22.87	60.31	53.73	83.63	133.70	55.00
2035	22.90	60.64	53.04	83.53	141.00	55.00
2036	22.94	61.72	52.35	83.44	148.80	55.00
2037	22.97	60.96	51.65	83.34	157.00	55.00
2038	23.00	60.27	50.96	83.24	165.60	55.00
2039	23.03	59.14	50.26	83.14	174.70	55.00
2040	23.07	57.92	49.57	83.04	184.30	55.00
2041	23.07	57.92	49.57	83.04	184.30	55.00
2042	23.07	57.92	49.57	83.04	184.30	55.00
2043	23.07	57.92	49.57	83.04	184.30	55.00
2044	23.07	57.92	49.57	83.04	184.30	55.00

Grid tariffs

In order to determine the amount of grid tariffs, the applicant should use the grid tariffs applicable to the application with an annual increase of 6%.

Energy tax

For the determination of the energy tax amount, the rates applicable at the time of submission, as set out in Chapter 6 of the Environmental Taxes Act, apply.

Reduction timetable for EU ETS allowances
For the free EU ETS allowances, the applicant must use a linear phase-out of free allocation, with the current allocation decreasing linearly from 2025 to 0 in 2040.

Industry CO2 tax
For the determination of the amount of the CO2 tax, the rates applicable at the time of submission, as set out in Chapter 6B of the Environmental Taxes Act, apply. The rates for the last year as included in the Act must be applied for all subsequent years in the application of the calculation method.

Dispensation rights for CO2 tax
The method in force at the time of submission, as included in Chapters 6B and 16B of the Environmental Taxes Act, applies to determining the number of dispensation rights. Excess dispensation rights attributable to the NIKI may not be traded. If the recalculation shows that the applicant still appears to retain dispensation rights and has since traded them, they must be valued at the transaction value and deducted from the required subsidy.

Fixed operating costs

Fixed operating costs are an essential part of daily operations and can vary considerably from one company to another, depending on the sector, size of the company and specific business models.

The most common fixed operating costs are listed below:

- Rental or leasing of premises
- Gross wage costs
- Insurance

Variable operating costs

Variable operating costs fluctuate directly with production or sales volumes. These costs change depending on the business activity. The variable operating costs include, inter alia:

- Raw and other materials
- Energy consumption
- Fuel costs
- Packaging materials
- Shipping and transport costs
- Utilities, such as steam, water and compressed air consumption.

Maintenance costs within investment costs

These expenses are important for the continuation of projects and preservation of operational capacity in the current state. Examples include the replacement of critical equipment or other significant one-off purchases expected to occur periodically over the lifetime of the project.

All costs related to the maintenance or replacement of capital assets must be carefully evaluated in order to determine whether they are essential for the continuation of the project. This means that costs for the replacement of essential equipment or significant one-off purchases, which are expected to occur

periodically over the lifetime of the project, must be clearly distinguished from other capital investments.

Corporate income tax and the Energy Investment Allowance (EIA)

Per year, the VPB actually payable must be included in the 'NIKI calculation model subsidy' that is attributable to the NIKI project. More specifically, this concerns the VPB as part of the operational cash flow (OPEX). Note: these are cash flows and therefore not the VPB to be paid (annual VPB payment) for the profit achieved in the relevant financial year, but rather the advance payment for the relevant financial year and settlement of past years

If an EIA declaration is obtained for all or part of the NIKI installation(s), this will reduce the corporate income tax to be paid and therefore affect the required subsidy amount. The EIA benefit should therefore be included in the 'NIKI subsidy calculation model' in the form of a lower VPB payment in the relevant years to calculate the required subsidy amount.

Excluded operating costs

Although this is clear from the above method, the following is a list of costs that are in any case excluded from operating costs:

- depreciation and amortisation of the NIKI installation(s), as these are not cash flows;
- depreciation and amortisation of existing installation(s) before NIKI that have been changed due to the NIKI project (e.g. in the case of electrification, process efficiency), as these are not cash flows;
- financing costs: interest, loan underwriting costs and other financial charges;
- Costs incurred as part of investment costs; and
- costs to the extent that they are not technically necessary and are not exclusive to the NIKI project.

Step 5 – Reduce operating costs (OPEX) with any operational benefits

When assessing the annual operating costs, it is essential to adjust them in relation to operational benefits. These benefits may arise from the following:

- additional revenue from the sale of EU ETS allowances; and
- additional revenue from the sale of emission allowances for the Dutch CO_2 levy.

EU ETS

In order to determine the additional revenue from the sale of EU ETS allowances, the following elements are needed:

i. The direct CO_2 emissions of all greenhouse gas installations within the NIKI process that are attributable to the EU ETS;
ii. The expected amount of free allowances for the same greenhouse gas installations;

In order to make projects comparable, all applicants must use the same CO_2 price prediction and reduction timetable for free allowances, which will be provided by the Dutch government.

CO_2 emission factors

The execution of a NIKI project may also result in a surplus of tradable emission allowances for the Dutch levy. If the applicant intends to transfer these rights, this transaction is considered to be revenue from the sale of these rights and is therefore also included as operational benefits in the 'NIKI subsidy calculation model'. Applicants must demonstrate what the amount of surplus emission allowances is and to what extent this is due to the NIKI project. This calculation should be further explained in the climate plan.

In order to make projects comparable, all applicants must use the same CO2 levy forecast and reduction timetable for dispensation rights, which will be provided by the Dutch government.

Step 6 – Discount the OPEX and turnover

Calculate the WACC

Maximum support is calculated by discounting future cash flows to the current value. The discount rate to be used is the weighted average cost of capital (WACC) of the company. The WACC should be calculated using the following formula:

$$WACC = \frac{E}{D+E} * \left(r_f + \beta * ERP\right) + \frac{D}{D+E} * (r_f + DP¿ * \left(1 - T\right)$$

The table below provides an overview of which party provides the information (applicant or Dutch authorities) and which source will (must) be used.

Parameter	***Description***	***Provided by***	***Source***
E	Total own funds used to finance the project	Applicant	Applicant's annual accounts
D	Total debt used for the financing of the project	Applicant	Applicant's annual accounts
r_f	Risk-free interest rate	Dutch Government (prescribed)	2.7%
B	Equity beta	Applicant	Company-specific unlevered beta. In the 'NIKI subsidy calculation model', this is corrected for the actual leverage of the applicant as shown in the most recent annual accounts.
ERP	Equity risk premium	Dutch government	5.2%

		(prescribed)	
DP	Debt premium	Applicant	The premium paid by the undertaking on foreign funds above the risk-free interest rate (bank statement, financial statements)
T	Tax rate	Dutch government (prescribed)	25.8%

The WACC is used to discount and make comparable future income and cost flows over the economic lifetime of the NIKI installation.

Applicants must correctly apply the mandatory formula as part of the NIKI scheme to calculate the WACC when applying. It will then also be used during the monitoring phase of the project. The application will be checked as to whether the formula has been applied correctly. Many applicants have experience and are familiar with the cost of equity and debt – and therefore the WACC to be used for their project.

For the determination of the beta, which serves as input for the calculation of the WACC, applicants may use one of the following methods:

1. The 'Unlevered Beta adjusted for cash' for Western Europe, by the sector, as published by Professor Damodaran (see https://pages.stern.nyu.edu/~adamodar/pc/datasets/betaEurope.xls);
2. Own beta, adjusted for cash, only for listed companies, indicating the source and calculation method used; or
3. An average, cash-adjusted beta of comparable listed companies.

If you choose option 3, your justification and calculation must meet the following conditions:

a. The average beta is derived from at least five and a maximum of seven listed companies;
b. Provide the reasons why these undertakings are representative of your business, taking into account the following criteria at a minimum:
   - turnover volume;
   - sectoral connection;
   - number of employees;
   - geographical turnover distribution; and
   - product portfolio;

c. Explicitly state the source(s) and method of calculation used to determine this average beta.

If the beta is determined on the basis of option 1 or 2 (for listed companies), then it is assumed that the calculation is plausible and no further substantiation is required.

For the WACC calculation, the equity ratio of the group to which the applicant belongs must be applied in accordance with the consolidated financial statements. Deviation from this is only possible if it can be convincingly substantiated (such as with a joint venture).

Extrapolation of OPEX and turnover after 10 years of operation up to and including the end of economic life of the NIKI installation(s) (at least 20 years)

The required subsidy is obtained over the period from the start of the NIKI project to the tenth year of operation. After the tenth year, the subsidy is definitively

calculated and the NIKI project is finished. However, in order to calculate the required subsidy amount, a calculation is made over the entire economic life of the NIKI installation(s).

In the 'NIKI subsidy calculation model', the financial data are entered up to and including the tenth year of operation. Of the data entered for the operating years 6 to 10, the geometric average of the growth of the yield (OPEX balance, operating benefits and turnover) is calculated by the model and automatically extrapolated with the geometric growth to the years 11 to the year end of economic life.

This calculation is made when applying for the subsidy. When determining the subsidy, the calculation is carried out again with actual results for the first 10 years of the operating phase.

Step 7 – European subsidy

If a European subsidy is also obtained for the project, this subsidy amount (without discounting) is deducted from the required subsidy amount calculated using the 'NIKI subsidy calculation model'. The latter amount will then become the maximum subsidy amount to be granted.

3. Application of calculation method during NIKI project

3.1 General

In the previous chapter, the calculation method was explained step by step in terms of content. This chapter explains the phases of the NIKI project in which the undertaking (the recipient of the NIKI subsidy) must use the calculation method and how this contributes to accountability and reporting of the results achieved with the NIKI project.

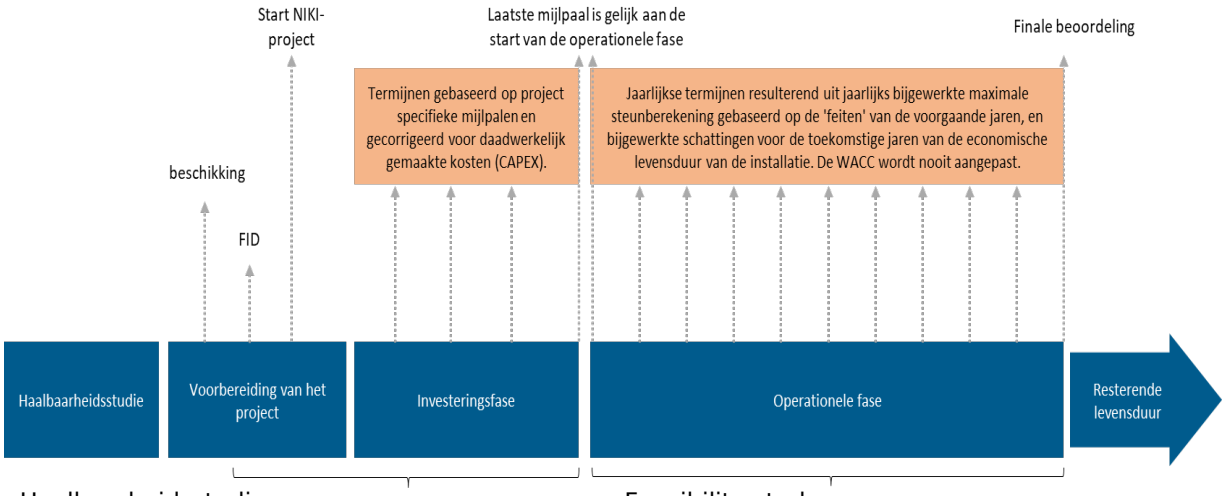
The calculation method is used when applying for a NIKI subsidy to support the financial feasibility of the proposed NIKI project and in the subsequent phases as a means of calculating the advance payment and the required subsidy. The required subsidy cannot be definitively determined until after the end of the NIKI project because it depends on, among other things, the CO_2 emission reduction achieved during the NIKI project. The granting of each advance takes into account the required subsidy as foreseen at that time. Consequently, when calculating the NIKI subsidy, the difference between the subsidy to be determined and the advance granted will be as small as possible. Any subsequent payment on the subsidy or partial repayment thereof is therefore avoided as much as possible.

When granting an advance, a difference is made between an advance during the investment phase and an advance during the operating phase of the NIKI project. During the investment phase, an advance is provided on the basis of the subsidy decision and the estimated project costs for the coming project years. During the operating phase, an advance is no longer granted on the basis of original estimates, but on the basis of actual costs, revenues and production volume from the underlying project years and on the basis of updated estimates for the remaining economic life of the NIKI installation(s).
The calculated advances and subsidy to be determined are therefore always less than the:

- maximum permitted grant according to the NIKI calculation method using the claw-back mechanism;

- subsidy intensity as included in the application (€/tonne of CO_2) multiplied by the actually avoided CO_2 emissions (tonnes) cumulatively over the operating phase of the NIKI project; or
- subsidy granted.

Firstly, the 'claw-back mechanism', which is part of the NIKI scheme, also plays a role in this. The NIKI scheme is a generous subsidy for the difference between the return the subsidy recipient and its shareholders/financiers want to achieve with the NIKI project and the costs derived from this, as well as revenue from the NIKI installation(s). However, the subsidy must not lead to an excessive financial return on the NIKI project, also known as 'over-subsidisation'. If it appears during the operating phase of a NIKI project using the calculation method that a lower amount of subsidy is needed than the amount promised in the subsidy decision, the difference between those two amounts will be offset against the advance still to be provided. The same approach is followed when determining the subsidy.
The claw-back mechanism is the set-off principle in order to avoid over-subsidisation. The mechanism consists of a distribution key for the distribution of the aforementioned difference between the two amounts, by which the subsidy recipient can keep part of the difference and the other part is for the government. This encourages and rewards the subsidy recipient for achieving improvements in the financial return with the NIKI project compared to the subsidy application. At the same time, it is reasonable for the government to share this, since the government granted a generous subsidy and therefore also took a significant financial risk with a project that should still produce the expected CO_2 emission reduction.
Secondly, the production volume achieved also plays a role in the provision of an advance during the operating phase and in the determination. The production achieved is a measure of the CO_2 emission reduction achieved. Lower production means a reduced CO_2 emission reduction. The advance is adjusted sothat the subsidy intensity, subsidy granted per tonne of CO_2 avoided, is never more than the offer submitted by the subsidy recipient with the application. The claw-back mechanism and principle that the subsidy intensity cannot exceed the subsidy recipient's offer in the application must be applied simultaneously in the calculation of the advance and of the maximum permitted subsidy. In addition, the subsidy to be determined may never exceed the subsidy granted.
The figure below shows the various phases of a NIKI project, the use of the NIKI calculation method and the corresponding system of advance payments and settlements. In the following sections, these phases are explained in more detail in chronological order. Incidentally, an updated calculation using the calculation method must also be drawn up in a situation of an 'essential change' to the NIKI project, both during the investment phase and operating phase.



Haalbaarheidsstudie
Voorbereiding van het project
Investeringsfase
Operationele fase
Resterende levensduur
beschikking
FID
Start NIKI-project
Laatste mijlpaal is gelijk aan de start van de operationele fase
Finale beoordeling
Termijnen gebaseerd op project specifieke mijlpalen en gecorrigeerd voor daadwerkelijk gemaakte kosten (CAPEX).
Jaarlijkse termijnen resulterend uit jaarlijks bijgewerkte maximale steunberekening gebaseerd op de 'feiten' van de voorgaande jaren, en bijgewerkte schattingen voor de toekomstige jaren van de economische levensduur van de installatie. De WACC wordt nooit aangepast.

Feasibility study
Project preparation
Investment phase
Operating phase
Remaining life
decision
FID
Start of NIKI project
Last milestone is equal to the start of the operating phase
Final assessment
Timeframes based on project-specific milestones and adjusted for actually incurred costs (CAPEX).
Annual instalments resulting from annually updated maximum support calculation based on the ‘facts’ of the previous years and updated estimates for the future years of the economic life of the installation(s). The WACC is never adjusted.

3.2 The investment phase

The investment phase of a NIKI project starts when the first binding obligation is entered into that makes an investment irreversible, such as the final order of equipment or the start of construction. The acquisition of land and preparatory work, such as obtaining permits and conducting preliminary feasibility studies, does not constitute the start of the NIKI project. The last milestone is the date on which the NIKI installation is put into commercial operation, which marks the end of the investment phase and the start of the operating phase.
An advance will be granted on the basis of the approved project budget and milestones established by the applicant. For each of these milestones, the applicant indicates the costs corresponding to the activities within this milestone. A milestone represents a concrete result to be achieved and the associated costs. Each milestone period must be concluded with a concrete identifiable result of activities carried out in the project. The milestones should be substantiated in the NIKI project plan. All eligible costs incurred in the run-up to the result to be achieved should be included in this milestone. If the milestones are not met and you take longer to do so or the costs are going to deviate, this must be reported to the RVO. In addition to notification, an amendment request is also submitted with

adapted planning and adjusted milestone budget. This could have consequences for the payment of the advances. The applicant must formulate a minimum of three and a maximum of five milestones for the NIKI project. A milestone cannot be the granting of a subsidy decision.
The total of the advance in the investment phase may not exceed the lowest of the following amounts calculated on application with the NIKI calculation method:

- 40% of the requested subsidy; or
- the total investment costs when submitting the application.

The subsidy recipient reports annually, using an updated calculation based on the NIKI calculation method, on the achievement of this, and, where necessary, updates the milestone budget. At the end of the investment phase, a more extensive report is expected, which also justifies the actual investment costs. In addition, the subsidy recipient must prepare an updated calculation of the maximum permitted subsidy on the basis of the investment costs realised and on the basis of updated estimates of costs and revenues for the economic life of the NIKI installation(s).

3.3 The operating phase

The operating phase of a NIKI project comprises the first ten years during which the NIKI installation is in operation, following the investment phase of the project. At the end of the operating phase, the NIKI project ends and the NIKI subsidy is calculated. The NIKI installation will then remain in operation until the end of its economic life in principle.

During the operating phase, the subsidy recipient reports annually on the progress of the project and achieved production volume from which the avoided CO_2 emissions achieved are derived. The annual report must be accompanied by an updated calculation of the maximum permitted subsidy using the NIKI calculation method. The grant recipient uses the previously reported investment costs, achieved operating costs, revenues and production volume from underlying operational years and updated estimates of these data for future operational years of the NIKI installation(s). The subsidy recipient must mention in the report any deviations from previous estimates. When reporting for the fifth operating year, the company must also add a report of factual findings from an auditor on the figures reported up to that time.

In the operating phase, the advance payment take into account the maximum permitted subsidy calculated at that time and any claw-back expected at that time. Consequently, in the subsequent operational year, if the calculation of the required subsidy has been updated again, a claw-back incorporated in the amount of the advance in a previous year can also be corrected again. In the situation in which, after a few operational years, the financial return of the installation develops more favourably than estimated in the subsidy application, the claw-back mechanism will take place in principle. This means that the advance amount is adjusted (reduced) accordingly compared to previous estimates. Suppose that it turns out one or two years later during the operating phase that the financial return does not improve or even deteriorates. Based on new calculations, it will then be concluded that too little advance has been granted. This will be corrected with the new advance payment, so that the total advance granted is in line with the most up-to-date calculations of the maximum permitted subsidy according to the NIKI calculation method.

The same approach is taken with the CO_2 emission reduction achieved. This is derived from the NIKI production volume achieved. In the case of a production volume shortfall, the advance will be adjusted so that the subsidy granted per tonne of CO_2 avoided is never more than the offer submitted by the subsidy recipient at the time of application. However, during the operating phase, the subsidy recipient has the option to cover this shortfall in CO_2 emission reduction achieved by means of an increased NIKI production volume in subsequent years of the operating phase. This principle is also known as 'banking': deficits (reduced production volume) in one operational year can be offset by surplus (increased production volume) in another operational year.

The operating phase of the NIKI project ends after the tenth year of operation. The operating phase of the NIKI installation lasts longer, i.e. until the end of the economic life of this NIKI installation. This is at least 20 years.

3.4 Determination

The determination of the subsidy follows the subsidy recipient's application for determination. In doing so, a final report on the project implemented must be submitted, including a final calculation using the NIKI calculation method of the maximum permitted subsidy. The company uses achievement rates for all project years (both the investment phase and operating phase) and extrapolate the operating years 6 to 10 based on geometric average to the 11th to the year end of economic life of the NIKI installation(s). The figures used must be explained in the final report and supported by an accountant's audit report.

At the same time as the financial calculations, the production volume achieved during the ten years of the operating phase shows the level of the CO_2 emission reduction achieved.

This chapter previously states that the subsidy to be determined is always less than the following three amounts:

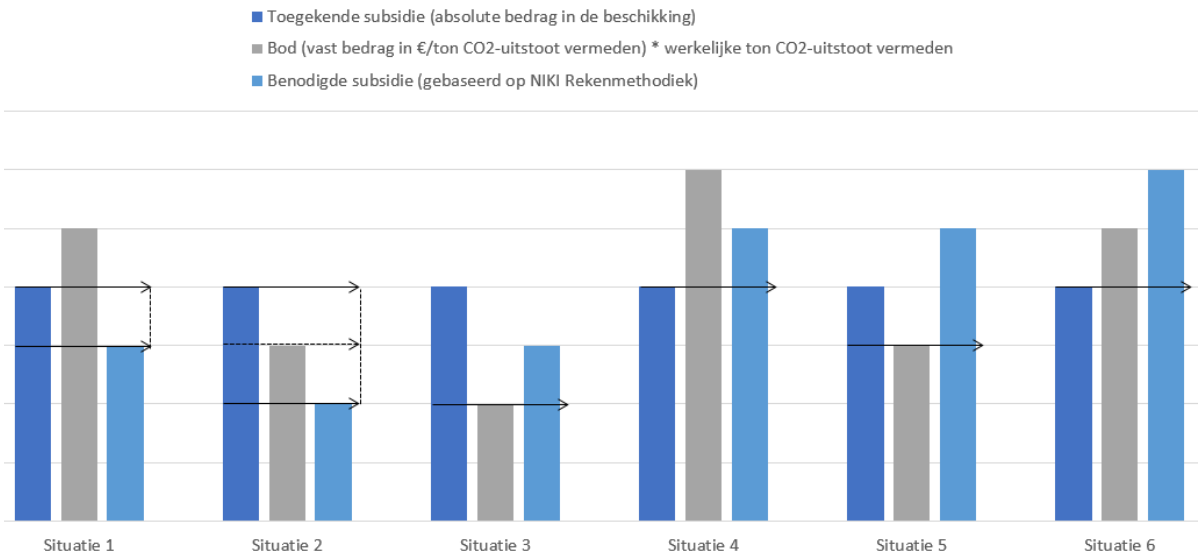
- the required subsidy according to the NIKI calculation method using the claw-back mechanism;
- the subsidy intensity according to the application (€/tonne of CO_2) multiplied by the actually avoided CO_2 emissions (tonnes) cumulatively over the operating phase of the NIKI project; or
- the subsidy granted.

So, in principle, there are six conceivable situations in which each of these three amounts is greater or less than the other two and all amounts are positive or zero.

These situations are explained in more detail in the examples below. It is expressly noted that the examples are intended solely to clarify the functioning of the various mechanisms. In no way are the examples or numbers intended to be values considered decisive of a submitted NIKI application.

If the required subsidy has a negative value, then the subsidy is set to zero.

In the event that the applicant has received too much subsidy, the statutory interest rate prescribed by the European Commission will be levied on the amount to be refunded on the subsidy received in excess.
In order to clarify the six cases that the calculated subsidy is at least EUR 0, a situation has been outlined for each case. These are presented visually below.



Situatie 1	Situation 1
Situatie 2	Situation 2
Situatie 3	Situation 3
Situatie 4	Situation 4
Situatie 5	Situation 5
Situatie 6	Situation 6
Toegekende subsidie (absolute bedrag in de beschikking)	Subsidy granted (absolute amount in the decision)
Bod (vast bedrag in €/ton C02-uitstoot vermeden) * werkelijke ton CO2-uitstoot vermeden	Bid (fixed amount in EUR/tonne C02 emission avoided) * actual tonne of CO2 emission avoided
Benodigde subsidie (gebaseerd op NIKI Rekenmethodiek)	Required subsidy (based on NIKI calculation method)

Characteristics of fictitious application and subsidy:

- Bid: EUR 50/tonne of avoided CO_2
- Estimated emission savings according to NIKI CO_2 emission reduction method: 1,200,000 tonnes of CO_2
- Subsidy granted: EUR60,000,000 based on the bid multiplied by the estimated CO_2 emission savings.

Situation 1
This situation reflects a situation in which, with equal or even increased production volume, the company carries out the project more efficiently than planned. The company achieves at least the originally estimated emission reduction and benefits from the efficiency achieved by retaining part of the savings.

Project result:

- Achieved emission savings: at least 1,200,000 tonnes of CO_2. Amount (bid x emission reduction achieved) ≥ EUR 60,000,000.
- Required subsidy calculated using the NIKI calculation method: EUR 55,000,000, which is EUR 5,000,000 lower than the subsidy granted
- Amount (bid x emission reduction achieved) ≥ granted subsidy > required subsidy.
- Claw-back mechanism: 40% of the efficiency achieved is for the company, 40% x EUR 5,000,000 = EUR 2,000,000.
- Subsidy to be determined = required subsidy + share in the claw-back = EUR 55,000,000 + 2,000,000 = EUR 57,000,000.

- Check: the subsidy intensity decreases (to EUR 57,000,000/1,200,000 tonnes of CO_2 = EUR 47.5/tonne of avoided CO_2). This is less than the bid and therefore permitted.

Situation 2
In this situation, the company achieved significant savings, but did not achieve the estimated production. As a result, they have not achieved the full CO_2 emission reduction stated in the application.

Project result:

- Emission savings achieved: 1,100,000 tonnes of CO_2. Amount (bid x emission reduction achieved) = EUR 55,000,000.
- Required subsidy calculated using the NIKI calculation method: EUR 50,000,000, which is EUR 10,000,000 lower than the subsidy granted
- Amount of subsidy granted > (offer x emission reduction achieved) > required subsidy
- Claw-back mechanism: 40% of the efficiency achieved is for the company, 40% x EUR 10,000,000 = EUR 4,000,000.
- Subsidy to be determined = required subsidy + share in the claw-back = EUR 50,000,000 + 4,000,000 = EUR 54,000,000.
- Check: the subsidy intensity decreases (to EUR 54,000,000/1,100,000 tonnes of CO_2 = EUR 49.0/tonne of avoided CO_2). This is less than the bid and therefore permitted.

Situation 3
In this situation, the company has achieved significant savings, as in scenario 2, but is slightly less successful in this. Once again, the estimated production was almost, but not quite achieved. As a result, they have not achieved the full CO_2 emission reduction stated in the application.

Project result:

- Emission savings achieved: 1,100,000 tonnes of CO_2. Amount (bid x emission reduction achieved) = EUR 55,000,000.
- Required subsidy calculated using the NIKI calculation method: EUR 52,000,000, which is EUR 8,000,000 lower than the subsidy granted
- Claw-back mechanism: 40% of the efficiency achieved is for the company, 40% x EUR 8,000,000 = EUR 3,200,000. Required subsidy + share in the claw back = EUR 52,000,000 + 3,200,000 = EUR 55,200,000
- Amount of subsidy granted > required subsidy + claw-back share > (bid x emission reduction achieved)
- Subsidy to be determined = (bid x emission reduction achieved) = EUR 55,000,000. In this scenario, the subsidy intensity is the limiting factor and remains the same as the bid (which is allowed) when determining the subsidy.
- If the subsidy had been calculated based on the entire claw-back, the subsidy intensity would be higher than the bid (which is not allowed).

Situation 4
In this situation, the company managed to produce more than expected on request, which also saved more CO_2 emissions. Unfortunately, the market pays less for the product than expected, which means that more subsidy is needed to achieve the return on which the application is based. As a result, the claw-back mechanism does not apply.

Project result:

- Emission savings achieved: 1,300,000 tonnes of CO_2. Amount (bid x emission reduction achieved) = EUR 65,000,000.
- Required subsidy calculated using the NIKI calculation method: EUR 62,000,000, which is EUR 2,000,000 higher than the subsidy granted
- Amount (bid x emission reduction achieved) > required subsidy > subsidy granted
- Subsidy to be determined = subsidy granted = EUR 60,000,000.
- Check: the subsidy intensity decreases (to EUR 60,000,000/1,300,000 tonnes of CO_2 = EUR 46.1/tonne of avoided CO_2). This is less than the bid and therefore permitted.

Situation 5
The business owner in this situation is mainly faced with adverse events. He has experienced setbacks in the costs of production and has therefore produced less than was expected at the time of the application. This also results in less CO_2 emission savings. Due to the increased costs and larger support required, the claw-back mechanism does not apply.

Project result:

- Emission savings achieved: 1,100,000 tonnes of CO_2. Amount (bid x emission reduction achieved) = EUR 55,000,000.
- Required subsidy calculated using the NIKI calculation method: EUR 62,000,000, which is EUR 2,000,000 higher than the subsidy granted
- Required subsidy > granted subsidy > amount (bid x emission reduction achieved)
- Subsidy to be determined = (bid x emission reduction achieved) = EUR 55,000,000. In this scenario, the subsidy intensity is the limiting factor and remains the same as the bid (which is allowed) when determining the subsidy.

Situation 6
In this situation, the opposite happens as in scenario 5. The company has also now experienced setbacks in the costs of production, but has been able to compensate them with higher proceeds by selling more NIKI products than was expected at the time of the application. This also saves more CO_2 emissions. Due to the increased costs and larger support required, the claw-back mechanism does not apply.

Project result:

- Emission savings achieved: 1,300,000 tonnes of CO_2. Amount (bid x emission reduction achieved) = EUR 65,000,000.
- Required subsidy calculated using the NIKI calculation method: EUR 70,000,000, which is EUR 10,000,000 higher than the subsidy granted
- Required subsidy > (bid x emission reduction achieved) > subsidy granted
- Subsidy to be determined = subsidy granted = EUR 60,000,000.
- Check: the subsidy intensity decreases (to EUR 60,000,000/1,300,000 tonnes of CO_2 = EUR 46.1/tonne of avoided CO_2). This is less than the bid and therefore permitted.

These cases illustrate the dynamics between the subsidy granted, the subsidy needed, the CO2 emissions savings achieved and how the recovery mechanism is applied in different scenarios to ensure that the subsidy to be determined is in line with both project performance and regulatory requirements.

Article II

In the table in Article 1 of the Regulation opening EZK and LNV subsidies 2025 [Regeling openstelling EZK- en LNV-subsidies 2025], a row is inserted under the row of Title 4.10, reading:

Title 4.13: Climate-Neutral Economy Manufacturing Investment Subsidy (NIKI)	4.13.2			01-09-2025 to 30-9-2025	EUR 211,000,000

Article III

This Order enters into force on the day following the date of its publication in the Government Gazette.

This regulation and the explanatory notes will be published in the Government Gazette.

The Hague,

The Minister for Climate and Green Growth,

EXPLANATORY NOTE

I. GENERAL

1. Background

In the government vision of the basic industry 2050, a commitment to ‘flagship’ projects was announced for the first time, with the cabinet indicating that the Netherlands must be able to support larger scale-up of industrial technologies more incisively and quickly[15]. This specifically concerns innovative technologies such as green chemistry or electrification, to be used widely in industry[16]. Furthermore, the coalition agreement of 15 December 2021[17] includes the target that the Netherlands should be fully climate-neutral by 2050, which is in line with the identical ambition of the European Union. In order to achieve this long-term goal, the government aims to achieve a circular economy, for which circular production with efficient use of raw materials is essential and in which industry in the Netherlands is at the forefront. Making the economy circular reduces greenhouse gases, such as CO_2. Interim targets have also been laid down in the Climate Act. For example, by 2030, total national greenhouse gas emissions must be reduced by 55 per cent compared to 1990 and the design of the policy will focus on a CO_2 reduction of approximately 60 per cent by 2030. This concerns a tightening of the previous emission reduction target of 49 per cent reduction by 2030 as set out in the Climate Agreement.

[15] Letter to Parliament of 15 May 2020 (Vision for sustainability improvement of the basic industry 2050; the choice is ours; Visie verduurzaming basisindustrie 2050; de keuze is aan ons), Parliamentary Proceedings II 2019/20, 29696, No 15.

[16] Letter to Parliament 13 April 2022, Parliamentary Proceedings II 2021/22, 29826, No 135.

[17] Coalition agreement 2021-2025, ‘Being considerate of each other, looking forward to the future’; Omzien naar elkaar, vooruitkijken naar de toekomst;

This is a major challenge for the industry. In the relatively short term, large-scale investments must be made to achieve the intended emission reduction. These might be more efficient production processes, large-scale energy savings, electrification or the use of circular raw materials.[18] In this respect, it is important that the investments fit in with the long-term vision of a fully climate-neutral economy by 2050. The term ‘climate projects’ below refers to investments made by the industry to reduce greenhouse gas emissions.

Building a climate-neutral economy requires a broad range of technologies. A major bottleneck is the scaling up of complex breakthrough technologies that have been proven on a demonstration scale but have not yet been applied on a (large) commercial scale. Projects that use new and often unique technologies of this kind are often even more expensive than projects based on proven technologies or continued operation of existing installations. This may have to do with higher investment costs because the technology is still at the beginning of the learning curve and higher exploitation costs, as more expensive raw materials and energy carriers are used. Moreover, for such projects with high costs and high risks, funding from the market is highly limited because financers often consider the risk in initial applications of technologies to be too high. As a result, it is difficult to get these projects off the ground without public support.

For these reasons, the use of a grant tool for risk reduction has been chosen instead of other risk coverage mechanisms, such as a guarantee of funding. This decision is mainly driven by the first bottleneck: the high cost of scaling up complex breakthrough technologies. Subsidies provide direct financial support to cover these initial high costs, which is essential to enable the development and implementation of these technologies. While guarantees may persuade financers to invest by reducing the risk of non-repayment, they do not directly address the fundamental challenge of the higher initial costs associated with these innovative projects. By granting subsidies, a stronger foundation can be laid for the development of a climate-neutral economy by stimulating innovation and paving the way for the commercialisation of breakthrough technologies.

Analyses by the Netherlands Environmental Assessment Agency (PBL) and the Netherlands Enterprise Agency (RVO), scenario studies and also the Organisation for Economic Cooperation and Development (OECD) show that building a climate-neutral economy requires a broader range of CO_2-reducing technologies than can be supported by the Stimulation of Sustainable Energy Production and Climate Transition (SDE++) or other schemes (e.g. Accelerated Climate Investments Industry (VEKI), Demonstration Energy and Climate Innovation (DEI+) and the European Innovation Fund (EU IF)).[19] There is currently no adequate support for large-scale innovative projects:

SDE++
The SDE++ provides support for both investment costs and operating costs, but only for technologies that can be clearly defined, whose production is well measurable and for which it is possible to establish a market price for the product. Many of the new climate projects do not meet this condition.

[18] Letter to Parliament of 8 July 2022 (Making a difference with a strategic and green industrial policy; Het verschil maken met strategisch en groen industriebeleid), Parliamentary Papers II 2021/22, 29826, No 147.
[19] Guidehouse 2019 SDE+ expansion survey with industrial options, CE Delft 2020 Circular and bio-based options in the SDE++.

DEI+
The intensified DEI+ scheme only provides investment subsidy up to a maximum of EUR 30,000,000 and focuses on the demonstration phase. For large industrial climate projects, a subsidy of more than EUR 30,000,000 is desirable, which also covers operating costs.

VEKI
The VEKI mainly focuses on relatively small-scale process efficiency measures. These measures must have already been applied at the company. In addition, the maximum subsidy within the VEKI is limited to EUR 30,000,000 and is therefore insufficient for large-scale projects. Finally, the VEKI does not cover operating costs, which are necessary for scaling up certain technologies.

EU IF
The EU IF also supports large-scale and small-scale projects, but the chance of success for Dutch projects in obtaining European funding is small because of the relatively limited budget[20] in relation to the significant European interest. The required support is therefore too small and too uncertain for the task in the Netherlands.

The subsidy module Climate-Neutral Economy Manufacturing Investment Subsidy (NIKI), which is included in the new Title 4.13 of the Order on national subsidies granted by the Ministry of Economic Affairs and Climate Policy and the Ministry of Agriculture, Nature and Food Quality (RNES), is specifically geared towards supporting projects in the Netherlands in which an innovative technology is used on a commercial scale and that leads to a significant CO_2 emission reduction. Through the NIKI, subsidies are available for technologies with a high potential for CO_2 emission reduction, the scaling-up of which does not fit within existing subsidy schemes or modules. In this way, the NIKI is complementary to the existing instruments and investments in the scaling up of important industrial climate projects are encouraged.

2. Objective

The main objective of the NIKI is to reduce CO_2 and other greenhouse gas emissions in industrial production processes and product chains. To this end, the NIKI provides financial support for scaling up technologies in industrial enterprises that lead to a significant reduction in greenhouse gas emissions. This involves scaling up technologies that have been proven on a demonstration scale but have not yet been applied in the Netherlands on a (large) commercial scale. Thanks to financial support from the NIKI, the scaling up of these technologies from demonstration to commercial scale can be accelerated. The financial support also makes it easier for companies to finance the investments as they cover the additional costs for CO_2-emission-reducing technologies and raw materials. In this way, the NIKI contributes to scaling up technologies that can then generate cost reductions, which can lead to a cost-effective use of the technologies. The operating phase of ten years ensures that the technologies are actually used for at least ten years.

In addition to reducing CO_2 and other greenhouse gas emissions in industrial production processes and product chains, the NIKI contributes to the Dutch and European 2050 goals in terms of climate neutrality. After all, installations built in the coming years are likely to be in use or determine future investment routes

[20] Due to rising EU ETS prices, more and more budget will be available for the EU IF. This increases the chances of success for Dutch projects.

beyond 2050. It is therefore important to ensure that NIKI projects fit into the final picture of a climate-neutral industry by 2050. When applying for a subsidy, the applicant must therefore demonstrate that the NIKI project fits into a series of activities that ultimately lead to the achievement of fossil-free, circular and CO_2-neutral operation in 2050.

Finally, the above objectives contribute to strengthening the future earning capacity of the Netherlands by making both existing industrial production processes future-proof and new growth markets.

3. Content of the NIKI

3.1. Target group
The NIKI is aimed at industrial companies that want to achieve extensive sustainability in the Netherlands. A NIKI project is aimed at significantly reducing greenhouse gas emissions in or by an undertaking covered by main group C (Industry) or E, subgroup 37 and 38.2 (Waste water collection and treatment and recovery from waste) of Standard Industrial Classification 2025, version 2024, from Statistics Netherlands. The applicant must therefore be an industrial undertaking.
The application must be submitted by an individual undertaking that carries out a NIKI project on its own account and at its own risk.

The NIKI installation(s) must be located in the Netherlands. The applicant is the owner or co-owner of the production plant(s) in which the investment is made and must also remain the owner or co-owner during the investment and operating phase (Article 4.13.8(5)). In addition, the applicant must also carry out the activities or have them carried out and invest at its own expense and risk (Article 3(1) of the Framework decree on national EZK and LNV subsidies (Framework Decree) and Article 4.13.6(b) of the RNES).

The NIKI scheme essentially aligns with the definitions and principles used within the VEKI and DEI+ schemes. The purpose of the NIKI is not to exclude joint ventures or co-ownership. It is possible that utilities essential to the project are constructed or operated by a third party. In such situations, these provisions should not appear on the applicant’s balance sheet, but rather be passed on as operating costs. This does not prevent subsidy application evaluation, provided that the application meets the minimum investment amount requirement.

Having several shareholders within a company is also not an obstacle, as the application is submitted by the company itself and not by the shareholders. The responsibility for the implementation and execution of the project remains with the applicant, regardless of the shareholder structure. However, partnerships that extend along the entire chain are excluded from the NIKI scheme.

3.2. NIKI projects
In order to be eligible for a subsidy, projects must fit into the categories and topics described in Annex 4.13.1. The specific technologies mentioned in the same annex should be seen as examples, as the NIKI is not limited to those technologies mentioned. Each year, an evaluation is conducted with regard to the relevant topics and changes may be made to these. Category A is based on Section 4.1 of the Guidelines on government aid for climate, environmental protection and energy 2022, (2022/C 80/01) (CEAG) and is in line with interim cabinet objectives as laid down in the Climate Act. Category B is based on Section 4.4 of the CEAG and is in line with the government policy on creating a circular economy. The

topics also link up with the parliamentary letters in which the NIKI has already been announced[21] and, where possible, with existing regulations, such as the DEI+ and the SDE++.

For 2025, the following topics apply:

Category A: Direct saving of CO_2 emissions in the production process	Category B: Replacement of primary fossil carbon in the product chain.
1: Large-scale process efficiency 2: Electrification 3: Hydrogen	No topics have been formulated within this category, but it is expected that main business projects in the field of bio-raw materials and chemical recycling will be notified. Other projects that lead to the replacement of primary fossil carbon in the product chain may also qualify.

The applicant personally indicates the category and topic under which the project falls and why. If a NIKI project contains activities falling within several categories or topics, the applicant must submit its NIKI project under one of the categories and topics and justify its choice. The justification must show at a minimum which activities of the project fall under which category or topic, which activities contribute most to the policy objective of the NIKI (CO2 emission reduction) and how these activities are in line with the chosen category and topic. When choosing category A, the applicant always demonstrates that the emission reduction achieved by the NIKI project is mainly achieved by direct emission reduction.

3.2.1 Characteristic aspects of NIKI projects
The unique nature of the projects covered by the NIKI means that standard basic amounts per technology cannot be used, as may occur with other subsidy schemes or modules. Each NIKI project is unique in its technological application and impact, which requires that each case is assessed individually. This is in line with the design of the EU IF, which also looks at innovative projects with potentially high impact without applying flat rates per technology.

Projects eligible for the NIKI must not only be innovative and sustainable, but above all economically viable in the long term. It is essential that a NIKI installation, after operating for ten years during the NIKI project, remains operational in order to continue to contribute to CO_2 emission reduction even after the NIKI project has ended. As stated above, a NIKI installation must therefore remain economically viable in the long term.

The main **obligations** are explained below to be eligible for the NIKI. For a complete overview, see to the article-by-article explanatory notes:
- the applicant must be an industrial undertaking covered by main group C (Industry) or E, sub-group 37 and 38.2 (Waste water collection and treatment and recovery from waste) of the Standard Industrial Classification 2025, version 2024, from Statistics Netherlands. Companies under main group D fall outside the scope of the NIKI;

[21] Parliamentary Letter 15 May 2020 (Vision for sustainability of the basic industry 2050; the choice is ours; Parliamentary Papers II 2019/20, 29696, No 15), Parliamentary Letter 13 April 2022 (Parliamentary Papers II 2021/22, 29826 No 135), and Coalition Agreement 'Being considerate of each other, looking forward to the future'.

- This is the SBI code of the actual activity used to achieve the CO2 emission reduction. This code may differ from the SBI code with which the company is registered with the chamber of commerce;

- a NIKI project concerns a coherent set of activities carried out in the Netherlands, by which the installations for which NIKI subsidies are granted are operated in the Netherlands. The investment in a NIKI installation must take place in the Netherlands at the applicant's production site;
- a NIKI product must meet the following condition: it must be a measurable unit produced in the NIKI installation(s), which can be physically transported, can leave through the gate of the production site, is economically marketable and is a source of proceeds for the industrial undertaking;
- CO_2, even if these conditions are met, is not considered to be a NIKI product;
- the applicant must be and remain the owner of the NIKI installation(s). Leasing restrictions are possible insofar as this concerns financial leasing, by which the lessee becomes the owner of the installation;
- it is a project for which at least EUR 30,000,000 in subsidy is requested;
- the NIKI project, including investments in the production plant, must be consistent with the categories and topics that are the focus of the NIKI. There are some relevant exceptions to these topics:
  - The production of electricity from wind energy:
  - The production of hydrogen through electrolysis;
  - Gasification in which the product, the syngas, is used directly for the production of heat and electricity;
  - Investment projects in which the recycled material is used as a backfill material or as a raw material in animal feed or food products;
- The NIKI project must lead to a reduction in CO_2 emissions of at least 100,000 tonnes compared to the reference product. This means:
  - The project must not lead to an increase in total CO_2 emissions released into the atmosphere, for example due to the displacement of emissions to other sectors;
    The project must not lead to the generation of energy that would replace less polluting forms of energy.

Furthermore, the main **grounds for rejection** for the NIKI are included below. For a complete overview, see Part II of these explanatory notes. The subsidy application will be rejected if:
- the subsidy intensity for applications exceeds EUR 300 per tonne of CO_2. This ensures that the project will achieve a significant CO_2 reduction within the 10-year operating phase.
- the applicant cannot demonstrate that the production process can be operated without a subsidy when the NIKI support ends after the operating phase of ten years.
- use is made of technologies that fit into the SDE++, except in the case that the investment costs for these technologies are less than 10% of the total investment costs;
- the project is not part of a series of activities that ultimately lead to a fossil-free climate of neutral operation by 2050 in order to prevent fossil technological lock-in. This must be demonstrated by the applicant when the subsidy application is submitted;
- the subsidy is requested for a project that does not go beyond established commercial practice within the European Union. The NIKI subsidy may also be granted for projects that apply technologies that are already being used on a commercial scale outside the European Union;
- the investment costs are less than 20 per cent of the following sum: investment costs plus discounted operating costs minus discounted operational benefits. The

corresponding investment costs, operating costs and operational benefits correspond to the value as referred to in the NIKI calculation method;
- the NIKI product is used as fuel for more than ten percent of the total outgoing mass of the production process. If the production of the NIKI product is entirely based on carbon extracted from Direct Air Capture, more than ten per cent of the production output may be used as a synthetic fuel. The term ‘fuel’ refers to a product with no function other than using the energy content of the molecule. Fuel is used energetically in the use phase. The NIKI product is also considered a fuel if it is an intermediate product that is blended into a standardised fuel, possibly from another batch;
- a subsidy is requested that is mainly aimed at the construction of infrastructure. This takes into account the expenditure incurred on the various components of the project and the extent to which it is intended for infrastructure. Expenditure on the construction of infrastructure must be secondary in nature and not given more weight than other activities;
- a subsidy is requested for the production of energy from cogeneration;
- a subsidy is requested for the use of fossil fuels in investments in new production installations. Investments in the use of natural gas are excluded if the investment contributes to achieving the European Union’s climate target for 2030 and the objective of a climate-neutral European Union by 2050;
- the application is contrary to Sections 4.1 and 4.4 of the CEAG; this includes at least the following grounds for rejection:

- In accordance with the ‘polluter pays’ principle (costs of combating pollution must be borne by the polluter who caused the pollution), companies producing waste must not be relieved of the costs of its processing (this follows from point 238 of the climate, environmental and energy aid framework);
- In the case of recycling, there must not be lower recycling quality than the usual recycling method (this follows from point 235 of the climate, environmental and energy aid framework, together with ground for rejection (e));
- The aid must not encourage the production of waste or the increased use of resources and it must not increase the demand for waste or other materials and resources for the purpose of reuse, recycling or recovery without increasing the collection of those materials (based on point 250 of the CEAG).

3.3. Subsidy

3.3.1. Subsidy ceiling and offering of NIKI
The subsidy ceiling for 2025 is EUR 211,000,000. This is expected to support three to four NIKI projects, of which the size of the subsidy requirement can be expected to vary widely. It is possible that the total subsidy budget will be used for one NIKI project.

The subsidy ceiling is published annually in the Order on the offering of national EZK and LNV subsidies 2025 [Regeling openstelling nationale EZK- en LNV-subsidies 2025] (or in the successors of this Order), depending on the budget of the Ministry of Climate and Green Growth. This amending Order therefore also expands the Order on the offering national EZK and LNV subsidies 2025 with the offering of Title 4.13 of the RNES. It is expected that the scheme will be available annually until 2030, with an average budget of EUR 250,000,000.

In addition to the subsidy ceiling, the subsidy availability period is also published annually in the Order on 2025 national subsidies granted by the Ministry of

Economic Affairs and Climate Policy and the Ministry of Agriculture, Nature and Food Quality. An availability period was chosen from 1 September 2025 to 30 September 2025.

3.3.2. Assessment and ranking of applications

3.3.2.1. Eligibility
Projects are assessed on a number of aspects:

- *Completeness*
Only complete applications will be considered.

- *Appropriate in terms of category and topic*
In order to comply with CEAG, the aid framework under which the NIKI has been approved by the European Commission (include approval number), projects must fall under the two categories described in Annex 4.13.1.

- *Meets all conditions*
Projects must comply with all the conditions of the NIKI. A number of conditions are based on the aforementioned aid framework. For the sake of equal opportunity for all applications, all conditions apply to all applications, regardless of the category in which they are submitted. Applications with a bid above EUR 300/tCO_2 are not eligible for a subsidy within the NIKI.

- *Feasibility*
Considering the complexity of the NIKI projects and the amount of the subsidy, the submitted applications are assessed for feasibility. This assessment ensures that projects that can start in a timely manner are supported. This reduces the risk of failing or delaying projects and therefore underutilisation of the available budget. Applications must therefore include a project plan. This project plan must provide sufficient information to assess the feasibility of the project and include a specified impact on financial, technical, operational and market feasibility, with a risk assessment over the entire NIKI project. A detailed explanation of the project plan and corresponding instructions can be found in the ‘Instruction for Project Plan and Climate Plan NIKI’, which will be available from the time of publication in the Government Gazette via the NIKI page on the RVO website. If the applicant does not submit a project plan or does not include the minimum mandatory components, the application will not be considered complete.

- *Correct application of NIKI CO_2 emission reduction method*
In order to ensure comparability between different applications, it will be assessed whether the prescribed method for calculating CO_2 emission reduction has been properly applied.

- *Correct application of NIKI calculation method for the NIKI subsidy calculation*
Finally, to ensure comparability between different applications, it will also be assessed whether the prescribed calculation method for calculating the *necessary* subsidy has been properly applied. The *requested* subsidy is calculated by multiplying the bid submitted by the calculated CO_2 emission reduction.

3.3.2.2. Ranking
The NIKI projects are ranked:

Applications are ranked based on the bid submitted. This prioritisation method leads to efficient spending of the budget by achieving the greatest possible

climate impact with the available budget. Ranking is done in such a way that the proposal with the lowest bid (the subsidy intensity included in the subsidy application) gets the highest position. The subsidy decision lays down relevant parameters, including projected total production volumes and expected CO_2 emission reduction. These parameters serve as a basis for calculating the CO_2 emission reduction during the operation of the NIKI installation(s) based on actual production.

3.3.3 Distribution of subsidy ceiling
The Minister for Climate and Green Growth (minister) grants subsidies until the ceiling is reached, starting with the highest ranked application. Subsidies are awarded from the top of the ranking list downwards, as long as the budget allows for this. Applications for which funds are no longer available will be rejected. If the budget must be divided between several subsidy applications that are ranked the same in the assessment, the ranking between them will be determined by drawing lots in accordance with Article 28(2) of the Framework Decree.

If the budget is not sufficient for the next position in the ranking, the applicant will be consulted as to whether the project can still be implemented with the remaining budget. If this is not feasible, the next applicant will be approached in the ranking. In this way, efforts are made to use the available budget as efficiently as possible and to support as many high-quality projects as possible within the financial possibilities.

3.3.4. NIKI CO_2 emission reduction method
In order to determine the CO_2 emission reduction, the applicant must follow the NIKI CO_2 emission reduction method and use the corresponding calculation instructions in Annex 4.8.2 of the NIKI. This method has been specifically developed to guide applicants in accurately determining the CO_2 emission reduction, including the reduction of both direct emissions and chain emissions. This facilitates an accurate comparison of different projects based on the subsidy intensity in the form of the bid submitted. The reference is based on products that perform the same function using the best available technologies.

The CO_2 emission reduction is calculated over those parts of the life cycle of each NIKI product that are also actually affected by the investment project. These are the emission reductions linked to the use of raw materials and energy, to the production process and to the incineration or end-of-life phase of the products. Emission reductions during the use phase are therefore not included in the calculation. These reductions are almost always dependent on agreements or exchanges between chain partners.

The NIKI CO_2 emission reduction method adequately ensures that NIKI projects achieve a reduction of CO_2 emissions compared to a relevant EU Emission Trading Scheme (ETS) benchmark. The method calculates the CO_2 emission reduction compared to a reference product that approaches the best available technology. This has been chosen because the calculation covers several life cycle phases, which goes beyond the scope of EU ETS benchmark calculation. It was therefore decided not to use the EU ETS benchmarks as a starting point. The EU ETS benchmarks contain an emission factor for the life cycle phase process (scope 1 only), but do not contain enough information to draw up the mass and energy balance (EIA) for the process. It is undesirable to first have to supplement an EIA with information from other sources in order to then calculate emissions over the above life cycle phases. A combination of sources causes confusion and uncertainty in the data used. An advantage in time use is also avoided, as the

applicant still needs to consult other sources when calculating the emissions. This also applies to projects aimed at increasing process efficiency. Again, an EU ETS benchmark does not provide sufficient data because there is a change in inputs and process emissions.

For consumption of electricity from the grid, an emission factor of 0.14 kg CO_2/kWh should be used. This emission factor is also applied in other schemes, such as the DEI+.

3.3.5. Subsidy amount
A NIKI project is only eligible for a subsidy under the NIKI with a minimum requested subsidy of EUR 30,000,000. This was chosen in order to be able to achieve projects of a certain scale. On the other hand, it was also chosen in order to align with the maximum aid amounts that can be granted on the basis of the DEI+ and the VEKI.
The maximum amount of the requested subsidy, and therefore the size of the NIKI projects, is not limited beforehand. In practice, it will be limited by the annual available budget. It is therefore possible that the entire budget in a given year will be allocated to one NIKI project if this project has the lowest subsidy intensity, as stated in Section 3.3.2.2.

The basis for the support is the bid. The bid, stated in euros per tonne of CO_2 avoided, can be seen as the subsidy intensity for which the applicant offers to carry out the NIKI project. The bid is an independent parameter in a NIKI application. The bid cannot be adjusted, even if the subsidy granted is lower than the requested subsidy. However, the bid must be supported by a correct application of the NIKI calculation method for the NIKI subsidy calculation and the NIKI CO_2 emission reduction method. With the NIKI calculation method, the applicant calculates the *required* subsidy. In other words, the subsidy needed to achieve an efficiency with the investment in the NIKI installation(s) that is at least equal to the applicant’s average cost of capital. In addition to the *required* subsidy, the applicant also calculates the *requested* subsidy. This means that the bid is multiplied by the calculated CO_2 emission reduction during the NIKI project.

This approach guarantees the independence and inviolability of the bid submitted. A significant difference between the required subsidy and the requested subsidy may result in the minister having insufficient confidence in the financial feasibility of the NIKI project and therefore rejecting it. The subsidy application will then not be ranked.

Only investment costs and operating costs that must reasonably be incurred in order to carry out the activities of the NIKI project can be included in the methodology, which are the so-called eligible costs (Article 10(1) of the Framework Decree). In addition, the calculation of the costs must comply with the relevant provisions of the CEAG (Article 4.13.4).

3.3.6. Type of subsidy
The subsidy received by projects through the NIKI relates to both investment costs and operating costs. The required subsidy is calculated by determining the difference between the investment costs, discounted costs (operating costs) and discounted revenues. Annex 4.13.3 on the NIKI calculation method prescribes in detail which costs can be included in the determination of the subsidy application and how the operational benefits should be included.

3.3.6.1. Advance payment
In the payment of advances related to the NIKI subsidy, the investment phase and the operating phase can be distinguished. The advance payment in each of these phases is described below.

For both phases in the NIKI project, the advances during a NIKI project are adjusted several times based on recalculations of the required subsidy as prescribed in the calculation method for the NIKI subsidy calculation. After all, cost reductions or increases in operation income due to fluctuations in market prices of NIKI products, for example, can reduce the financial need for subsidy and vice versa. In case of lower costs or higher operational benefits, the advance payment for future years may be adjusted downwards and vice versa. The adjustment involves a distribution key of 40 per cent for the beneficiary and 60 per cent for the subsidy provider. This system is explained in more detail in the calculation method for the NIKI subsidy calculation. It has been decided not to fully adjust to avoid discouraging the beneficiary from building or producing more efficiently during the NIKI project.

3.3.6.1.1. Investment phase
The investment phase of a NIKI project starts no later than twelve months after the granting of the decision, with the possibility to extend this period by six months, and no earlier than the moment when the first binding obligation is entered into that makes an investment irreversible, such as the final order of equipment or the start of construction. The subsidy will be paid out in this period on the basis of a milestone method. When submitting the subsidy application, the applicant may indicate at which points in the development process the investment aid is required. The applicant defines several milestones in the milestone budget based on the planned activities. The applicant must formulate a minimum of three and a maximum of five milestones for the NIKI project. A milestone cannot be the granting of a subsidy decision. This gives the applicant the opportunity to optimise the investment process with the certainty that the investment aid will be received at the right times. Each milestone period must be concluded with a concrete identifiable result of activities carried out in the project. The milestones should be substantiated in the NIKI project plan. All eligible costs incurred in the run-up to the result to be achieved should be included in this milestone.

The total of the advance in the investment phase may not exceed the lowest of the following amounts calculated on application with the NIKI calculation method:

- 40 per cent of the requested subsidy; or
- the total investment costs when submitting the application.

The amount in the investment phase has been deliberately limited in order to prevent applicants from applying for a disproportionate amount of the necessary subsidy at an early stage of the project. After all, the NIKI is explicitly intended for both investment aid and operating support.
At the end of the investment phase, which may last a maximum of four years, the beneficiary recalculates the necessary subsidy on the basis of the prescribed calculation method in the NIKI calculation method. This calculation takes into account the actual investment costs and must also provide current estimates for the operation costs, operational benefits and production volumes. If, on the basis of the recalculation, the necessary subsidy is lower than the granted subsidy, the future advances are adjusted downwards. The adjustment amounts to 60 per cent of the difference between the subsidy granted and the recalculated required subsidy. The future advances can never be adjusted to an amount that results in

the advances received and the future advances jointly coming to a higher amount than:

- the subsidy granted; or
- the most recent estimate of CO_2 reduction multiplied by the bid (see Section 3.8.2).

Recalculation of the necessary subsidy and the calculation of the (adjustment of) advances in the investment phase is explained in detail in the calculation method for the NIKI subsidy calculation.

3.3.6.1.2. Operating phase
The operating phase starts as soon as the NIKI installation(s) is/are put into operation. This is a maximum of four years after the start of the NIKI project. All operating costs incurred during the investment period (e.g. part of the installation was already operational) are added to the operating costs of year one of the operating phase. The operating phase lasts 10 years.

At the end of the investment phase, which is equal to the start of the operating phase, and at the end of each operational year, the beneficiary recalculates the required subsidy using the NIKI calculation method. This calculation takes into account the actual investment costs, actual operating costs and operational benefits of past years and must also provide current estimates for the operating costs, operational benefits and production volumes in future years. The adjustment of the advances at the start of operating phase has been explained in the investment phase.

If, at the end of a year, the required subsidy is lower based on the recalculation than the previous recalculation of the necessary subsidy, the future advances are adjusted downwards. The adjustment will be 60 per cent of the difference between the recalculated required subsidy and the lowest of:

- the subsidy granted;
- the most recent estimate of CO_2 reduction multiplied by the bid; or
- the previous recalculation of the amount of support needed.

If, at the end of a year, based on the recalculation, the necessary subsidy is higher than the previous recalculation of the necessary subsidy, the future advances are adjusted upwards. However, the future advances can never be adjusted to an amount that results in the advances received and the future advances jointly coming to a higher amount than:

- the subsidy granted; or
- the most recent estimate of CO_2 reduction multiplied by the bid (see Section 3.8.2).

Recalculation of the required subsidy and the calculation of the (adjustment of) advances in the operation phase is explained in detail in the calculation method for the NIKI subsidy calculation.

3.3.7 Failure to trade excess dispensation rights

In the application, the applicant indicates whether an industrial installation is operated as intended in Article 71h(g) in conjunction with Articles 71i and 71k(2) of the Environmental Taxes Act and therefore falls under the CO_2 levy. In the event

that the opt-out scheme is used, the excess dispensation rights do not have to be calculated. Otherwise, the dispensation rights must be calculated at the company level.

In cases of trade with dispensation rights, the applicant must provide, as part of the climate plan, a substantiated calculation showing the number of excess dispensation rights. Excess dispensation rights refer to the surplus of dispensation rights attributable to the NIKI project and could be traded by an undertaking. For each levy period during the operating phase of the NIKI project, the applicant calculates this using the CO_2-surcharge methodology.

The applicant supports this calculation based on the:
- projects and developments described in the climate plan with an indicative timeline. It is important that the applicant state how the NIKI project contributes to the reduction of CO_2 emissions covered by the CO2 tax;
- connection between the NIKI project and the amount of dispensation rights that become superfluous. The applicant demonstrates how the NIKI project leads to a surplus of dispensation rights.

Annual recalculation of dispensation rights
In the annual report to the RVO, the subsidy recipient once again indicates whether it falls under the CO_2 tax and whether dispensation rights were traded. If trade has taken place, the subsidy recipient must submit a calculation or recalculation of the excess dispensation rights. The justification must include the following at a minimum:
- energy consumption and process emissions by the NIKI project;
- the tradable dispensation rights attributable to other projects or activities or to a change in the level of activity within the installation of the subsidy recipient to which the NIKI installation belongs.

The RVO will compare the information provided with data from the Dutch emission authority. If excess dispensation rights have been traded in the past year, this will have an impact on the subsidy amount. The subsidy will be reduced by the number of dispensation rights traded multiplied by the rate of the CO_2 tax of the previous year. The applicant must give a reason for the trading.

3.3.8. Combination with other subsidies
The NIKI cannot be combined with other national subsidy schemes. So, it is not possible to combine existing subsidy regulations with the NIKI. Technologies that fall under the SDE++ may be part of a NIKI project, but the investment costs of these technologies must not exceed 10% of the total investment costs of the NIKI project.

In the design of the NIKI scheme, it is important to avoid undesirable overlap or competition with other existing subsidy instruments. After all, the NIKI scheme aims to support projects that are unique in their application or scale within the Netherlands.

In particular, the technologies covered by the SDE++ are excluded. The SDE++ primarily focuses on technologies that can be clearly defined, whose production is well measurable and for which a market price for the product can be determined. However, many innovative climate projects do not meet these conditions, so they are not eligible for the SDE++.

In addition, it is not possible to combine an application for the NIKI with another national subsidy. Under the Framework Decree on national subsidies granted by the Ministry of Economic Affairs and Climate Policy and the Ministry of Agriculture, Nature and Food Quality [Kaderbesluit nationale EZK- en LNV-subsidies] (hereinafter: the Framework Decree), it is not possible to grant more subsidies than are permitted under the relevant aid framework (in this case, the climate, environmental and energy aid framework). Given that the NIKI reimburses 100% of eligible costs, it is not possible to combine this with another Dutch regulation, such as the VEKI.

In addition, it is not possible to combine an application for the NIKI with the Energy Investment Allowance (EIA). EIA is a deduction and therefore does not fall under the definition of subsidy. Since the NIKI will reimburse 100% of eligible costs, it is not desirable for applicants to be able to use other public funds. So, the EIA is also included in the calculation of a combination of various subsidies in order to prevent accumulation.
On the other hand, it is possible to combine an application under the NIKI with European schemes, such as the IF, provided that all other conditions of both the NIKI and the European scheme are met.

3.3.9. Duration of the subsidy
The projects supported by the NIKI are similar to the type of projects supported by the EU Innovation Fund (EU IF). In order to ensure a level playing field within Europe, the duration of the NIKI's operating activities is the same as that within the EU IF, i.e. ten years. The total duration of a NIKI project is 14 years.

4. Online consultation

1. General
The online consultation in relation to the NIKI took place in the period from 4 November 2024 to 13 December 2024. A total of 24 responses were received during this consultation. These responses came from a diverse group of market parties, including industry associations and forerunners, start-ups and scale-ups, sheltered workplaces, consultancy firms and other private companies.

Based on the responses submitted, the proposed regulation text and annexes have been amended in a number of respects. In addition, the explanatory notes to the Order have been clarified in several places.

2. Responses by topic
The online consultation revealed several concerns. These are explained in more detail below.

2.1 Subsidy threshold
Various respondents asked for an increase in the minimum subsidy requirement of EUR 30 million and the minimum subsidy intensity of EUR 300 per tonne of CO_2 reduction. The NIKI is primarily aimed at the large-scale implementation of so-called 'flagship projects', by which both the duration of the subsidy period and intended size of the projects and associated CO_2 reduction are taken into account when setting these thresholds.

In addition, some respondents asked for attention to the maximum subsidy intensity. The NIKI aims to support projects and technologies that achieve a substantial amount of CO_2 reduction. A possible reduction in the subsidy intensity (e.g. to EUR 400 per tonne of CO_2 reduction) is expected to affect mainly the

number of applications rather than the final ranking agreements and subsidy allocation. In addition, it is expected that the winning projects, also in view of the maximum subsidy intensity of projects submitted under the EU IF, will remain below the set amount.

In view of the above, it was decided not to make any changes to the subsidy threshold and intensity used in the first offering of the scheme.

2.2 Start of investments

2.2.1 Start of implementation
In addition to the six-month period for taking an FID, the NIKI offered the option to request a postponement of the implementation period for up to 12 months. In order to prevent potential applicants from dropping out, it has been decided to extend this implementation period to 12 months, with the option to request a postponement for six months. This also helps reduce the regulatory burden.

2.2.2 Permit requirement
In addition, several respondents asked for further clarification of the requirement of a ‘conclusive overview of permits’. The reason for this is that a project must be sufficiently developed for an assessment of its feasibility when applying. Due in part to uncertainty surrounding this condition, it was decided to adjust it. It is now a requirement that applicants have completed the basic engineering phase at the time of submission of the grant application and can prove this. Dialogue with market parties shows that this phase is usually finished before the subsidy application. This provides the subsidy provider with sufficient information to be able to assess the application properly. An overview of the required permit(s) must still be provided under Article 4.13.10(3)(e).

2.3 Concurrent regulations
In developing the NIKI, it was important to avoid undesirable overlap or competition with other existing subsidy instruments. After all, the NIKI aims to support projects that are unique in their application or scale within the Netherlands.

In particular, the technologies covered by the SDE++ scheme (hereinafter: the SDE++) are excluded. The SDE++ primarily focuses on technologies that can be clearly defined, whose production is well measurable and for which a market price for the product can be determined. However, many innovative climate projects do not meet these conditions, so they are not eligible for the SDE++. For this reason, technologies that do fall under the SDE++ are excluded from the NIKI to the extent that these technologies make up more than 10% of the investment costs.

In addition, it is not possible to combine an application for the NIKI with another national subsidy. Under the Framework Decree on national subsidies granted by the Ministry of Economic Affairs and Climate Policy and the Ministry of Agriculture, Nature and Food Quality [Kaderbesluit nationale EZK- en LNV-subsidies] (hereinafter: the decree), it is not possible to grant more subsidies than are permitted under the relevant aid framework (in this case, the climate, environmental and energy aid framework). Given that the NIKI reimburses 100% of the eligible costs, it is not possible to combine this with other Dutch schemes. Because some uncertainty could arise about this, it is explicitly included in the scheme that the EIA is also included under this prohibition.

On the other hand, it is possible to combine an application under the NIKI with European schemes, such as the IF, provided that all other conditions of both the NIKI and the European scheme are met.

2.4 Climate plan
When assessing a subsidy application under the NIKI, submission of a climate plan is an important condition. This is in line with the implementation of, among other things, the Teunissen motion (Parliamentary Papers II 2024/2025, 32813, No 1460), which requires companies to present a climate plan to be granted funds from the Climate Fund.

The climate plan is relevant not only for the assessment of the application, but also for the determination of the number of excess dispensation rights attributable to the NIKI project. In addition, the plan provides insight into how the applicant prevents a lock-in effect by investing in technologies and projects in line with long-term climate goals and enabling further CO_2 reduction. In this way, the climate plan contributes to a careful and targeted use of the available resources within the NIKI.

2.5 SAF (Sustainable Aviation Fuel) fuel restriction
The NIKI is primarily aimed at supporting innovative projects that contribute to the reduction of direct emissions or chain emissions within industry. Subsidies for fuels as such do not fall within the objectives of this scheme. The focus is on stimulating technological and process-based innovations that align with the transition to a climate-neutral industry.

In the European context, the Renewable Energy Directive encourages the use of sustainable fuels, including biofuels. Annex IX to this directive contains specific requirements with regard to the feedstocks that may be used for biofuels. The Netherlands has implemented these requirements through the HBE system in the Environmental Management Act, which promotes and regulates the use of sustainable biofuels. The NIKI is in line with this by supporting projects that contribute to structural emission reductions and innovation in line with national and European climate targets.

It has been deliberately chosen not to increase the limitation for the proportion of NIKI products that serve as fuel within a project. This decision was taken to retain the focus of the scheme on supporting innovative projects that achieve direct and structural CO_2 reductions within industry. Increasing this limitation could lead to a shift in focus on fuel-related applications, which is not in line with the intended applications for the NIKI.

2.6 Ownership
During the online consultation, it was found that there is uncertainty about possible partnerships within the NIKI scheme. In principle, the NIKI is in line with the definitions and principles used within the VEKI and DEI+ schemes. The purpose of the NIKI is not to exclude joint ventures or co-ownership. It is possible that utilities essential to the project are constructed or operated by a third party. In such situations, these provisions should not appear on the applicant’s balance sheet, but rather be passed on as operating costs. This does not prevent subsidy application evaluation, provided that the application meets the minimum investment amount requirement.

Having several shareholders within a company is also not an obstacle, as the application is submitted by the company itself and not by the shareholders. The

responsibility for the implementation and execution of the project remains with the applicant, regardless of the shareholder structure.

However, partnerships that extend along the entire chain are excluded from the NIKI. This decision was made because in such cases, the subsidy provider is not able to adequately test the financial feasibility of the project. The scheme specifically focuses on individual projects and companies that independently bear the responsibility and risk for the implementation and operation of the project. The explanatory notes contains a more detailed explanation of how to deal with this requirement.

2.7 CO_2 method
Calculating CO_2 reductions in a chain by replacing fossil raw materials with bio-based alternatives may raise complex issues. This applies particularly to the allocation of CO_2 reductions to various streams originating from a single process or facility. Such calculations may lead to discussion and possibly to misinterpretation or conclusions.
In order to address these challenges, the NIKI offers a standardised CO_2 emission reduction method. This method provides clear instructions on when and how allocation is to be applied to the outgoing streams and the biogenic carbon content of a process.

Establishing a suitable reference for CO_2 emissions or footprint can be challenging, especially when projects are innovative and deviate from common production methods. This makes it difficult to calculate the net reduction effect of a project accurately, which in turn makes the determination of the unprofitable top more complex.

The NIKI provides a standardised CO_2 emission reduction method that contains clear instructions on how to determine reference products. This explicitly describes how to deal with products that are not physically identical to a reference product. This approach provides guidelines for arriving at a consistent and reliable determination of the reference emissions.

Although the calculation of chain emissions is inherently more complex than the determination of direct emissions, the NIKI method offers a framework that includes chain emissions. This enables a more realistic comparison between the climate impact of different projects. This broader approach contributes to a more accurate picture of the actual emission reduction and reinforces the objectivity of the assessment procedure.

2.7.1 Green electricity
The proposal allows all electricity to be classified as green without the need for GOs, with the argument that the Dutch electricity grid will be CO_2-neutral in the future. This could promote electrification because predetermining that all additional electricity is covered by GOs can be difficult.

However, the NIKI adheres to the principle that it is not realistic to assume 100% zero-emission electricity in the years in which the NIKI installations will be operational (2030-2045). In order to reflect the current and expected development of the Dutch electricity market, an emission factor (EF) of 0.14 kg CO_2 per kWh applies. This value provides a balanced approach that takes into account the progressive sustainability of the electricity supply, while at the same time providing a realistic and consistent starting point for the calculation of emission reductions within the NIKI.

2.7.2 ETS benchmarks
Market parties have indicated that the sector is not currently covered by the EU ETS for their project, leading to questions as to which benchmark should be used. Reference is also made to other formally prescribed CO_2 benchmark references, such as included in the LAP3 policy.

Furthermore, the NIKI does not use EU ETS benchmarks as a reference point. This is deliberate because EU ETS benchmarks are primarily based on direct emission reductions. The NIKI takes a broader approach by including not only direct emissions, but also chain emissions in calculations. This provides a more complete assessment of the climate impact of projects. A sector that is not yet covered by the EU ETS is therefore not an obstacle to submitting an application.

The NIKI CO_2 emission reduction method contains clear instructions for determining the reference relevant to a project.

2.7.3 Electrification
Market parties have indicated that electrification for steam generation, such as through e-boilers, heat pumps or direct heating, should be allowed in the NIKI. This is proposed as compensation for efficiency losses that may occur when using CO_2 reduction technologies such as hydrogen. Concerns have also been expressed about the calculation of emissions, as average emissions from the Dutch electricity grid are taken into account while some companies use only carbon-free electricity.

Following the online consultation, the NIKI has an EF of 0.14 kg CO_2 per kWh for electricity consumption. In addition, the NIKI remains committed to the exclusion of technologies already covered by the SDE++ scheme, such as the production and deployment of blue hydrogen. This avoids an overlap between schemes and ensures that the NIKI remains focused on innovative solutions that provide unique contributions to CO_2 reductions in industry.

2.7.4 Process limits
It has also been indicated that the verification of the up and downstream impact within the chain entails significantly greater complexity. This makes it challenging to accurately determine the total CO_2 savings across the entire chain.

More specifically, this can lead to complications in the allocation of CO_2 reduction to various streams used in different units within the installation(s). This makes the net reduction effect of a project more difficult to quantify. It also affects the calculation of the unprofitable top of a project, which makes it difficult to estimate the total subsidy intensity of EUR 300 per tonne of CO_2.

In this framework, the NIKI provides flexibility by allowing applicants to determine the process limits themselves within the frameworks of the NIKI CO_2 emission reduction method. However, NIKI products must be marketable. There is no obligation to calculate emission reductions throughout the chain. Only end-of-life emissions must be determined, provided that they differ from the reference product. The method also offers the possibility to substantiate upstream emissions reductions and include them in the calculation where relevant to the project.

2.7.5 Circular processes
Market parties have indicated that the distinction between rigid and elastic inputs is not always clear. In addition, the current end-of-life management and use of materials (e.g. landfilling, incineration with or without energy recovery) often

cannot be determined uniformly or unambiguously. This leads to uncertainty about how emissions should be treated at end of life, as well as about the allocation of upstream scope 3 emissions for circularity projects.

In this context, the NIKI CO_2 emission reduction method uses an approach to circular processes by treating incoming flows and end-of-life emissions separately. This method encourages projects that contribute to a more circular economy, without requiring full circularity throughout the chain.

Applicants must provide separate justification for emission reductions from recycled incoming flows, as well as emission reductions in end-of-life recycling. For both scenarios, it is necessary that assumptions and calculations are sufficiently substantiated. This approach ensures that circularity projects can be assessed consistently and transparently within the frameworks of the NIKI.

2.8 Topics
The NIKI expressly does not seek to incentivise or support installations running on fossil fuels. This is excluded from both a policy perspective and on the basis of the applicable government aid frameworks. The scheme is aimed at projects that contribute to a transition to a climate-neutral industry and are in line with the long-term objectives for 2050.

However, the NIKI provides the possibility for applicants to obtain support for projects that, despite the use of fossil fuels, demonstrably do not cause lock-in effects being now and 2050. It must be substantiated here that the installation(s) in question do not obstruct the transition to a carbon-neutral future. This can be done, for example, by demonstrating that the installation(s) can switch to non-fossil fuels during the operating phase with little to no adjustments needed to achieve this change.

2.9 Calculation method
During the consultation, one of the concerns was, in calculating the weighted average cost of capital (WACC), whether the subsidy provider applied and/or whether the data to be provided adequately takes into account the efficiency requirements of venture capital (VC). The WACC should be calculated according to the prescribed formula. In doing so, the subsidy provider takes into account the nature of the scheme through generous remuneration, financing the entire ‘funding gap’, as well as guaranteeing the interests of financers who require a maximum return.

It has also been noted that the calculation methods refer to ‘NIKI products’ or reference products. The question has been raised as to whether all molecules produced by the project are included and whether this meets the requirement to define at least 90% of production as a NIKI product. The scheme requires that at least 90% of the outgoing mass flow with economic value is considered a NIKI product. However, it is permitted for part of the outgoing mass flow not to have an economic value.

During the consultation, it was discussed how the NIKI scheme deals with the fact that, within a corporate structure, the WACC calculation is carried out by the shareholders instead of the company itself. In principle, the NIKI scheme uses a prescribed formula to determine the WACC. This formula refers, among other things, to a range of the standard vector value, based on the Damodaran unlevered beta within Europe. This means that, when a parent company sets the WACC, it can be used for the NIKI, provided that the parent company is established

within Europe and/or in cases in which a parent company already uses a specific WACC that takes geographical differences into account. However, if there is a parent company outside of Europe, the WACC based on the European context must be determined.

It was noted during the consultation that using the WACC per farm for discounting returns may be a challenge for two reasons: it can lead to different discount rates for the same project in two different companies and investments usually require an internal rate of return (IRR) containing a threshold value above the WACC. While it is acknowledged that it is not the intention of the NIKI to over-subsidisation, it was proposed to use a fixed discount rate or IRR for all NIKI projects, in order to increase the attractiveness for external capital.

In response, it has been confirmed that the first observation is correct since the discount rate is highly dependent on the financing structure of the project and is related to the sector beta. However, in view of the relevant European State aid frameworks and the heterogeneity of the NIKI, it is not permitted to prescribe a uniform IRR for all projects.

During the consultation, comments were made on setting the ‘green premium’ for NIKI products. In principle, it is up to the applicant companies to demonstrate whether and to what extent there is a green premium. This projection is then confirmed with the application by the accountant’s statement and the scheme is designed so that a (significant) deviation from this has consequences for the application.

For example, if the applicant assumes that the green premium is too low compared to the actual market situation, this may result in the bid ending up lower in the ranking because the ‘funding gap’ then increases. This also raises the question as to whether the project is financially feasible if this (potential) income is not taken into account. At the same time, the actual subsidy amount may also be lower if it turns out during the implementation of the project that the market price actually has a green premium. In short, it is up to the applicant to justify the existence and amount of any green premium.

The question was also raised as to whether the necessary investments for connection to utilities for the intended installation(s) could be covered by the NIKI subsidy. The scheme states that investments in infrastructure and external connections are eligible for the NIKI project, with the exception of expenses for the preparation of the land (preparation for construction), costs related to environmental impacts and costs associated with land use and environmental impact caused by third parties. The assumption is that these provisions are activated on the balance sheet. If the utilities are connected by and at the expense of third parties, the costs must be accounted for as operating costs.

A different explanation was requested on the difference between a NIKI project and a NIKI product. This is explained in more detail below: A NIKI project is a coherent set of activities undertaken in the Netherlands by an industrial undertaking, by which investments are made in one or more NIKI installations. Within 10 years of being put into operation, this project must result in a CO_2 emission reduction of at least 100,000 tonnes of CO_2 compared to the reference product(s). Whether it is a complete production line (e.g. a cracker) or a specific process step (such as a compression unit), as long as the requirements are met (e.g. economic marketability and measurability of the CO_2 reduction), this may fall under the definition of a NIKI project. A NIKI product is a measurable unit produced

in the NIKI installation(s), has an economic value and is a source of revenue for the industrial undertaking. This product may be a final product (e.g. a chemical building block sold directly to customers), as well as a semi-finished product, provided that it has an economically marketable status.

Furthermore, the distinction between the requested and required subsidy is explained in more detail below. The requested subsidy is the subsidy amount applied for by the applicant by multiplying the own bid (price per tonne of CO_2 avoided) by the expected CO_2 emission reduction of the project. On the other hand, the required subsidy is the amount that actually appears to be necessary to achieve a return based on all cost and revenue data that is at least equal to the WACC (Weighted Average Cost of Capital). The required subsidy may therefore differ from the amount initially requested, for example because the actual costs, proceeds or CO_2 reduction are different from those assumed in the project estimate.

2.10 Reference product/topics
The list of reference products has been expanded by the RVO with various products following the online consultation.

2.11 Benchmark requirement
Market parties have asked whether it is possible to compare CO_2 reductions to current processes rather than to the Best Available Technologies (BATs). It is argued that this can demonstrate a greater reduction in CO_2.

The decision to compare CO_2 reductions to the best available technologies stems from the European government aid frameworks, which the NIKI must meet. This approach has also been chosen in order to not disadvantage frontrunners in sustainability. Companies that already have relatively low-polluting installations would gain less benefit compared to current processes, which could discourage innovation and further sustainability.

By using BAT as a reference, a fair comparison is made and prevents that companies with relatively polluting processes are disproportionately favoured. This contributes to stimulating the large-scale rollout of innovative technologies that are essential for achieving the climate objectives. The benchmark requirement is therefore in line with the NIKI objective of promoting a transition to a sustainable and climate-neutral industry.

2.12 Dispensation rights
The explanatory notes have been extended to include how applicants will deal with excess dispensation rights attributable to the NIKI project. This concerns dispensation rights on the company level. During the operating phase, applicants must perform an annual recalculation to determine whether and how much excess dispensation rights are attributable to the NIKI project.

2.13 Connection with Strategic Technologies for Europe Platform (STEP) and regulatory burden
Linking the EU IF STEP method to the NIKI is an interesting possibility, especially to reduce the administrative burden on applicants. However, this requires further exploration and research. Any future subsidy offerings will examine whether and how components such as technical feasibility, which have already been assessed within the EU IF, can be incorporated into the NIKI procedure.
In addition, NIKI offers companies, expecially start-ups and scale-ups, the option to have their project idea tested by RVO prior to opening. This will provide applicants

with valuable feedback at an early stage about the process and requirements for a successful application. This support helps to go through the application procedure more efficiently and increases the chance of a qualitatively strong submission. This is in line with the objective of the NIKI to stimulate innovation in industry while lowering administrative thresholds for applicants.

5. State aid

Sections 4.1 and 4.4 of the Guidelines on State aid for environmental protection and energy 2022 (OJ 2022, C80/1) allow Member States to grant aid to companies for the reduction and removal of greenhouse gas emissions and for resource efficiency and the transition to a circular economy.

In accordance with Article 108 of the Treaty on the Functioning of the European Union (TFEU), this scheme has been submitted to the European Commission for approval. This scheme is justified by State aid measure SA.103901 (2025/N).

6. Notification

The requirements for the production of hydrogen in category a, topic 3 of Annex 4.13.1 qualify as technical regulations within the meaning of Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on information society services. In accordance with this directive, the scheme has been notified to the European Commission.

7. Regulatory burden

The content-related adjustment and offering of the NIKI affects the regulatory burden. All subsidy applicants must submit an application form, including project plan and project budget. All subsidy recipients are then entrusted with the usual tasks, which can be found, inter alia, in the RNES and the Framework Decree. There is no derogation from the standard clauses and standard forms designed to minimise administrative burdens. For example, there is no need to apply for advances, because advances are paid automatically. Interim reports are subject to a maximum of one report per year in accordance with the Framework Decree. The administrative burden, such as providing audit reports with the application for the determination of the subsidy amount, is based on the Framework Decree.

A total of around fifteen applications are expected for the offering of the NIKI subsidy module, of which approximately three to four are expected to receive a subsidy. The administrative burden is estimated at EUR 407,158. This is 0.19% of the total available subsidy of EUR 211,000,000.

The scheme was also submitted to the Advisory Board on Regulatory Burden (ATR). The Advisory Board on Regulatory Burden (ATR) has not selected this case for a formal opinion because the impact on regulatory burden is adequately known.

8. Evaluation

The NIKI will be evaluated after the first year and may be adjusted as a result. Because predefined technologies are not used (as is the case with the SDE++), technological developments are automatically taken into account and the NIKI is adjusted accordingly. In addition, the following evaluations of the NIKI are scheduled:

Interim evaluation in 2027
This monitoring evaluation analyses the applications made in 2025 and 2026 and examines what lessons can be learned from them. Among other things, it will be examined which different types of projects are stimulated by the NIKI. Important considerations will be whether there are certain technologies that make a disproportionately large claim on the annual budgets and the relationship between the different types of emission reduction projects. It will also be examined which (type of) companies are participating in the NIKI. Based on this evaluation, it will be determined which changes to the NIKI are desirable for adjusting the scheme.

Interim evaluation in 2029
This evaluation will examine, among other things, the extent to which the projects that received subsidies were completed in the 2025 selection.

9. Entry into force

This Order enters into force on the day following the date of its publication in the Government Gazette. This date of entry into force does not follow the system of common commencement dates according to which ministerial regulations take effect on the first day of a quarter and are published at least two months in advance. This is justified in this case because the target group will benefit from prompt entry into force.

II. **ARTICLES**

The articles in this title are explained below where necessary.

Article I, Subsection A
This part introduces the Climate-Neutral Economy Manufacturing Investment Subsidy into Title 4.13 of the RNES.

Title 4.13. Climate-Neutral Economy Manufacturing Investment Subsidy (NIKI)

Article 4.13.1. Definitions
This article contains the definitions relevant to this title.
For example, the terms ‘industrial undertaking’ and ‘NIKI project’ are included, explaining the who and what in terms of eligibility for a subsidy.

Article 4.13.2. Granting of subsidy
The subsidy may be applied for by a business professional operating an industrial undertaking who will carry out the NIKI project at own expense and risk.

Article 4.13.3. Distribution of the subsidy ceiling and subsidy amount
The first paragraph determines how the subsidy ceiling is distributed. This takes place by order of ranking of applications. Consequently, projects are ranked higher as they contribute more efficiently to the objective of this title. The higher a project is ranked, the earlier the project is eligible for a subsidy. In accordance with Article 4.13.7, the lower the subsidy intensity, the higher the ranking by the minister of applications that have not been rejected.

Subsidies will therefore only be granted to projects that fall below the subsidy ceiling after ranking. For the changes, see Section 3.2.4 of the general section of these explanatory notes. The second paragraph specifies for this title the

maximum aid intensity and the minimum and maximum subsidy amount available for eligible costs. For each NIKI project, the subsidy amounts to a minimum of EUR 30,000,000 and a maximum of the subsidy ceiling applicable to the relevant offering. This means that if, for example, the subsidy ceiling were to be EUR 250,000,000, the maximum subsidy granted would be EUR 250,000,000.

If the allocation of higher-ranking applications leaves a residual budget of less than EUR 30,000,000, it is possible that a subsidy of less than EUR 30,000,000 will be granted (paragraph 3). For the changes, see Section 3.3.3 of the general section of these explanatory notes.

Article 4.13.4. Eligible costs
Not all investment and operating costs are eligible for a subsidy. The main rule is that this concerns costs that must be incurred in order to carry out the activities for the NIKI project, the so-called eligible costs (Article 10(1) of the Framework Decree). The eligible costs are calculated using the NIKI calculation method. For the changes, see Section 3.3.6 of the general section of these explanatory notes.

The basis for the support is the bid. The bid is the requested subsidy intensity, expressed in subsidy per tonne of avoided CO_2. In addition to the bid, the applicant must also indicate the requested total subsidy created by multiplying the bid by the projected total quantity of units per NIKI product of the NIKI project.

The subsidy granted may not exceed 100% of the subsidy requested.

Article 4.13.5. Implementation deadlines
The period within which the activities must be completed is 14 years (first paragraph). If the subsidy application and corresponding declarations show that the NIKI project could not be completed within 14 years at the latest, the subsidy will be rejected on the basis of Article 23 (introduction and b) of the Framework Decree. This period was chosen because it is expected that a NIKI project can be completed within this implementation period.

Paragraph 2 states that implementation of the subsidised investment activities must start within 12 months of the subsidy being granted, with the option to extend this period by six months. The implementation of the subsidised investment activities is started by the first firm commitment that makes an investment irreversible. Some examples here would be ordering equipment or starting construction. The start of the execution of the subsidised investment activities is not considered to be the purchase of land and preparatory work, such as obtaining permits and conducting preliminary feasibility studies.

The third paragraph stipulates that the NIKI installation(s) will be in use or have been put into operation no later than four years after the start of the NIKI project. This ensures that the construction of the installation(s) continues and the emission reduction is achieved during the NIKI project.

The operating activities take place from the moment the commissioning of the NIKI installation(s) is put into operation and last 10 years (fourth paragraph).

Paragraph 5 states that the period referred to in paragraph 2 may be extended by the minister by up to six months at the request of the grant recipient if the minister deems this to be appropriate and necessary. The period referred to in paragraph 1 may be extended by a maximum of 12 months under the same conditions. Because the investment activities pursuant to the third paragraph and

the operating activities pursuant to the fourth paragraph must both be carried out during the period referred to in the first paragraph, only one of the periods in the third or fourth paragraph can be extended by 12 months. It is important to note that Article 37(3) of the Framework Decree on national subsidies granted by the Ministry of Economic Affairs gives the Minister for Agriculture, Nature and Food Quality the authority to grant exemption from the obligation to perform activities in accordance with the project plan of the subsidy recipient in the event of a delay in the performance of the activities or the essential modification thereof.

Article 4.13.6. Grounds for rejection

The minister will reject the subsidy application in the cases referred to in Articles 22 and 23 of the Framework Decree. For instance, the minister will reject the subsidy application if it does not comply with the rules set out in the Framework Decree or in the RNES (Article 22(1)(a) of the Framework Decree). An example of this is if an industrial company applies for a project *without* submitting the calculation of the CO_2 emission reduction.

This article also contains additional grounds for rejection.

If the subsidy is contrary to the Guidelines on state aid for climate, environmental protection and energy 2022 (2022/C 80/01), the minister will reject the application (part a).

An application will also be rejected if the applicant for the subsidy is not an investor in the NIKI installation(s) in which the investment is made (part b).

If the investment costs are less than 20 per cent of the following sum: investment costs + discounted operating costs - the discounted operational benefits, the application will also be rejected (part c).

In terms of the feasibility of the NIKI project, this refers to financial, economic, technical and operational feasibility (part d). Financial feasibility includes an assessment of whether the NIKI project is financially viable. This means that the subsidy application must include a cost-benefit analysis of the NIKI project. It must also predict the expected return on investment (ROI), as well as any financial risks. Economic feasibility takes into account the supply chain of raw materials and market for products (final or semi-finished product). The market research contains a market analysis, a breakdown of market competition and sales forecasts. In terms of technical feasibility, among other things, the description of the installation, operating parameters, justification for the technology used and justification of the choice of technology for the NIKI project must demonstrate that the process will work at the proposed location. Finally, in terms of exploitation feasibility, it is assessed whether it is plausible that the subsidy applicant can or cannot complete the NIKI project, e.g. whether the subsidy applicant has the resources, skills and competencies required to complete the NIKI project.

On the basis of subsection e, an application will be rejected if the NIKI project defines a technology that falls under a category included in the scheme on the designation of categories of renewable energy production and climate transition and whose investment costs amount to ten per cent or more of the total eligible investment costs of the NIKI project.

If the applicant has applied for a subsidy for the technology on the basis of the Decree on sustainable energy production and climate transition incentives, the application will also be rejected (part f).

By virtue of subsection g, the application will be rejected if the subsidy intensity exceeds EUR 300 per tonne of CO_2. For an explanation, see Section 3.2.3 of the general section of these explanatory notes.

Subparagraphs (h) and (i) state that an application will be rejected if the indicated costs are not plausible or if an unsuitable reference product has been chosen.

On the basis of subsection j, an application will be rejected if the calculation of the CO_2 emission reduction is not of sufficient quality and has not been sufficiently described. If the assessment shows that the prescribed NIKI CO_2 emission reduction method has not been properly followed, the application will be rejected. Insufficient quality may include incorrect documentation of data in the mass and energy balance or chosen emission factors or calculation errors, such as when converting variables into other units. A situation could arise in which the applicant has the choice between different reference processes and then data from different production processes uses data from different processes randomly without any justification or robust justification.

If a subsidy is requested for an investment in a NIKI installation(s) that allows the subsidy applicant to only comply with binding Union standards already in force or that do not go beyond established commercial practice generally applied across the Union and in all technologies, the application will also be rejected (part k).

Furthermore, an application will be rejected if it is not plausible that the NIKI installation(s) for which a subsidy has been applied will remain operational without a subsidy after ten years. For example, the applicant must justify that high costs for raw materials, which at the time of the application ensure that the project requires a subsidy, will decrease over time, as shown by trends from recent years or forecasts from reputable bodies such as PBL (part l).

An application will also be rejected if the NIKI project does not fall under a series of activities that will lead to fossil-free climate-neutral production for the applicant from the project plan referred to in Article 4.13.10(3) of the RNES (part m) by 2050.

The NIKI project must comply with the Do No Significant Harm principle (part n).

The NIKI project must not focus mainly on the construction of infrastructure. The applicant must demonstrate that a majority of the investment costs are not spent on the construction of infrastructure (part o).

The NIKI project must not focus on the production of energy from cogeneration (part p).

No fossil fuels may be used as part of a new installation within the NIKI project. This does not include investments in the use of natural gas if the investment contributes to achieving the Union’s climate target for 2030 and the objective of a climate-neutral Union by 2050 (part q).

Within the NIKI project, a maximum of ten percent of the total outgoing mass of the production process may be the production of fuel. If the production of the NIKI product is based entirely on carbon extracted from Direct Air Capture, more than ten per cent of the production output may be used as a synthetic fuel. Fuel refers to a product with no function other than utilisation of the energy content of the molecule. Fuel is used energetically in the use phase. The NIKI product is also

considered a fuel if it is an intermediate product that, whether or not from another batch, is blended into a standardised fuel (part r).

Article 4.13.7. Ranking criterion
This article states that the ranking of applications will be based on the bid, i.e. the subsidy intensity included in the subsidy application. The lower the subsidy intensity, the higher the application ranks. This means that the minister grants subsidies until the ceiling is reached, starting with the most highly ranked application. The minister will reject applications once the total of the higher-ranking applications has reached the subsidy ceiling. For the changes, see Section 3.2.3 of the general section of these explanatory notes.

Article 4.13.8. Obligations of the subsidy recipient
The subsidy recipient must comply with the general obligations pursuant to the Articles in Chapter 11, Section 1 of the Framework Decree.

In accordance with the requirements of Article 4.13.8 of the RNES, the subsidy recipient must document and assess the progress and results of the NIKI project. This is done through two reports:

- firstly, an annual report on the progress of the investments with regard to the advance activities, as referred to in Article 4.13.10 of the RNES focusing on the project milestones (paragraph 1(a));
- secondly, an annual report after the NIKI installation(s) has been put into operation on the progress of the operating activities with regard to the advance activities, as indicated in Article 4.13.11 of the RNES, including a provision for the revision of the maximum aid amounts in accordance with the calculation method for the NIKI subsidy calculation applicable at the time of submission of the application and published on the RVO website (paragraph 1(b)). For this report, an external verification by a registered accountant or accounting consultant is also necessary in some years (paragraph 4).

Paragraph 2 states that if the applicant is an operator of an industrial plant as referred to in Article 71h(g) in conjunction with Articles 71i and 71k(2) of the Environmental Taxes Act, the annual report must contain a declaration that the subsidy recipient is making use of the opt-out. If the opt-out scheme is not used, the applicant must provide the following information:
(1) a declaration that the subsidy recipient did not trade excess dispensation rights in the previous year;
(2) a recalculation of the number of excess dispensation rights over the previous charging period;
(3) a declaration that the subsidy recipient will not trade the excess dispensation rights in the remaining operating period.

Paragraph 3 states that if excess dispensation rights have been traded, the proceeds from this must be deducted from the subsidy amount using the CO_2-surcharge rate applicable at that time. For the changes, see Section 3.3.7 of the general section of these explanatory notes.

The fifth paragraph states that subsidy recipients must submit an amendment request in accordance with Article 37 of the Framework Decree if material changes to the NIKI project occur. This may involve, for example, a change in costs or the need to carry out the NIKI project differently than described in the application. The subsidy recipient must first apply for approval before any changes can be made, explaining why the change is necessary within the NIKI project. A change request

for the execution of the NIKI project is necessary, for example, if the CO_2 emission reduction of the project is affected by the change because, for example, the subsidy recipient intends to use other inputs or a different composition of inputs. In such case, the subsidy recipient must add an adjusted calculation of CO_2 emissions in the amendment request incorporating the change. If the NIKI project has dropped in the ranking due to the change, the request will be rejected. This does not apply to changes in the production output, as these are monitored and adjusted annually. The decision letter will include further guidelines on how the RVO handles change requests.

The sixth paragraph states that the subsidy recipient must cooperate with an evaluation of the impact of its NIKI project. The subsidy recipient only cooperates if this can be reasonably expected.

Finally, the seventh paragraph states that the subsidy recipient is the owner of the NIKI installation(s) in which the investment is made and remains so during the investment and operating phase.

Article 4.13.9. Cumulation
This article excludes cumulation with the EIA pursuant to Article 3.42 of the Income Tax Act 2001. This prevents reimbursement of more than 100% of eligible costs through the use of the EIA. The EIA does not fall under government aid or is not a subsidy as referred to in the General Administrative Law Act [Algemene wet bestuursrecht]. Article 6 of the Framework Decree therefore does not apply to the EIA. Article 4.13.9 aims to include the EIA in a cumulation calculation in order to prevent more than 100% of the costs being reimbursed by public funds.

Article 4.13.10. Information requirements for subsidy application
This Article lays down information obligations with regard to the data to be included or enclosed with the subsidy application. The data requested must enable a proper assessment to be made of whether the project would meet the objective of this scheme.

The applicant must also prove that the basic engineering has been carried out and completed. The aim of basic engineering is to establish the main design criteria and specifications necessary to further develop the project and minimise risks. In this phase, the technical solutions and design principles are developed to serve as guidelines for the detailed design and construction phase of a project

Furthermore, the subsidy application must include a project plan (paragraph 1(e)).

The second paragraph stipulates which components the project plan must contain at a minimum. This information is necessary to gain detailed insight into how the project will be carried out and associated costs, as well as the decision-making criteria on the basis of which a go/no-go decision will be made. The subsidy calculation may assess whether the milestones have been met. In addition, a description of the operational feasibility of the NIKI project, including legal requirements, must be included. An example of this would be the necessary permits.

A subsidy application must also include a climate plan (paragraph 1(f)). The third paragraph specifies which components the climate plan must contain at a minimum. A detailed explanation of the climate plan with corresponding instructions can be found in the ‘Instruction Project Plan and Climate Plan NIKI’.

Finally, it is important that, pursuant to Article 19(1) of the Framework Decree, an application for a subsidy is submitted using a means that is made available. This means will be made available at the beginning of the offering period via www.rvo.nl. Specifically, this means that the application form for the subsidy application and required formats will be made available.

When applying for a subsidy, the applicant must submit a number of documents so that the RVO can check eligibility for the subsidy and the amount.

Article 4.13.11. Advance on investment activities
An advance for investment activities is provided in accordance with Article 46(6) of the Framework Decree (first paragraph). This means that the maximum amount eligible for subsidy for which the advance rate is based is calculated by multiplying the eligible costs to be incurred in the period between two milestones by the subsidy rate applicable to this scheme and dividing it by the number of advance payments in this period. The subsidy rate for this scheme is 100 per cent.
The advance rate differs from the advance rate referred to in Article 46(4) of the Framework Decree and may not exceed the lowest of the following amounts calculated for applications using the NIKI calculation method:

- 40 per cent of the requested subsidy; or
- the total investment costs when submitting the application.

Article 4.13.12. Advance on operating activities
An advance for operating activities is provided in accordance with Article 46(7) of the Framework Decree. The amount of the maximum amount eligible for subsidy is calculated by multiplying the eligible costs to be incurred according to the plan over the entire subsidy period by the subsidy rate applicable to this scheme and dividing it by the number of advance payments in this period. The advance rate of 90 per cent is calculated on that amount (Article 46(4) of the Framework Decree).

Article 4.13.13. Adjustment of advance for operating activities
The advance will be adjusted within six months after the end of the calendar year on the basis of the annual reporting referred to in Article 4.13.8(1)(b) of the RNES in accordance with the calculation method for the NIKI subsidy calculation applicable at the time of submission of the application and published on the website of the RVO (first paragraph).

If it turns out that the subsidy recipient is still entitled to part of his advance or that the sum of the monthly amounts is actually more than the recipient is entitled to, the minister may either pay the subsidy recipient the underpaid amount within six weeks of the adjustment date, provided that the maximum advance amount to be paid for the total subsidy period is not exceeded, or offset the adjustment with monthly amounts still to be provided (paragraphs 2 and 3). For the changes, see Section 3.3.6.1 of the general section of these explanatory notes.

Article 4.13.14. Application for subsidy determination
Article 50(2) of the Framework Decree defines the minimum contents of the subsidy calculation application. This also applies to a final report on the implementation of the results of the activities (Article 50(2)(a) of the Framework Decree). This article determines what the final report must contain.

Article 4.13.15. Knowledge sharing
Pursuant to paragraphs 1 and 2, at the request of the minister, the subsidy recipient must cooperate in sharing the results of the subsidised projects. The

subsidy recipient is to share non-business-sensitive knowledge and information obtained from the project after the end of the project in a report of sufficient quality, at the discretion of the minister.

Paragraph 3 stipulates that the annual report referred to in Article 4.13.8(1) of the RNES can be used for the public sharing of the non-business-sensitive knowledge and information acquired through the NIKI project. Sharing knowledge and learning experiences gained from the projects over the course of the project instead of at the end of a NIKI project lasting up to 14 years may accelerate the further implementation of such projects and reduce the costs for others by learning from other projects. The reporting allows the minister to make this information available centrally and to better monitor the progress of the projects.

Article 4.13.16. State aid
In accordance with Article 108 of the TFEU, this title has been submitted to the European Commission for approval. This is explained in more detail in Section 5 of the general section of the explanatory notes.

Article 4.13.17. Expiry date
Article 4.10(2) of the 2016 Government Accounts Act states that grant schemes must include a limitation period of up to five years. Article 4.13.17 elaborates on the aforementioned provision.

Title 4.13 of the RNES and Annexes 4.13.1, 4.13.2 and 4.13.3 expire on **[to be specified]**. The provisions of Title 4.13 naturally continue to apply after the subsidies are paid out under this Title and to applications submitted before that date. In the future, it will be considered whether it is desirable to extend the expiry date for this title. In accordance with Article 4.10(7) of the Compatibility Act 2016, any draft scheme on such an extension will be submitted to the Second Chamber.

Article I, Part B
This part includes three attachments.

Annex 4.13.1

Part A of the annex refers to CO_2 equivalence factors. Part B provides a description of a NIKI project.

Annex 4.13.2

This annex describes the calculation method to be used to calculate the CO_2 emission reduction.

Annex 4.13.3

This annex describes the calculation method to be applied to calculate the eligible costs.

Article II
Article II lays down the offering period and subsidy ceiling for this scheme. To this end, the 2025 scheme offering EZK and LNV subsidies has been amended.

Article III
Article III governs entry into force. This is explained in more detail in Section 8 of the general section of the explanatory notes.

The Minister for Climate and Green Growth,