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**Federal Ministry  
for Economic Affairs and Climate Action (BMWK)**

**Directive on the funding of  
climate-neutral production processes in industry through  
Carbon Contracts for Difference**

**(Funding guideline for Carbon Contracts for Difference – FRL CCfD)**

**from [•]**

## 1. PREAMBLE

The European Climate Law stipulates that the EU must become climate neutral by 2050. According to the Federal Climate Protection Act, greenhouse gas emissions must be reduced by at least 65 % by 2030 and by at least 88 % by 2040 compared to 1990 levels, and climate neutrality must be achieved by 2045. In view of the national climate neutrality target and the requirements of the European Union's emissions trading system for the electricity sector and hard-to-abate industry (EU ETS 1), only about two decades remain for the transformation of industry to climate neutrality.

The overall economic costs of climate change, which are partly caused by today's prevailing production processes, are not yet fully priced into production costs worldwide. As a result, climate-damaging production processes are often even more favourable for companies than climate-friendly ones. In fact, climate-friendly production is often so cost-intensive that companies cannot switch to it because they would otherwise have a cost disadvantage in competition. Investments in climate-friendly production processes are therefore at least highly risky and are still too often not made today, especially because they affect plants with a technical lifespan of several decades.

This is where Carbon Contract for Difference s based on the concept of carbon contracts for difference (CO<sub>2</sub>) come in. They are designed to offset the additional costs incurred by companies from hard-to-abate sectors as a result of the construction (capital expenditure, or CAPEX for short) and operation (operational expenditure, or OPEX for short) of more climate-friendly plants compared to conventional plants. This enables companies to switch to more climate-friendly production. Carbon Contracts for Difference thus make new technologies marketable. Risks and ultimately costs become more predictable, which also enables financing based on equity and debt capital in climate-friendly technologies. As a result, the transition to macroeconomic climate neutrality in the industrial sector is already being tackled and a contribution is being made to ensuring that greenhouse gas emissions are not shifted abroad in line with the Paris Agreement. Carbon Contracts for Difference therefore not only lead to a reduction in emissions in the funded industries - the funding programme aims to directly save around 350 megatonnes of carbon dioxide equivalents (CO<sub>2</sub> equivalents) by 2045. They also incentivize the development and implementation of the necessary technologies and infrastructures in Germany right now. This is not only an important step for Germany as a center of innovation and for achieving Germany's climate targets. The innovations initiated by the Carbon Contracts for Difference will also advance the decarbonisation of industry worldwide.

At the same time, the Federal Government ensures that funding is efficient and that overcompensation is avoided. Carbon Contracts for Difference take special account of this through various regulations. If the effective CO<sub>2</sub> price exceeds the contract price stipulated in the Carbon Contract for Difference during the term of the agreement, the state funding not only ends, it also turns into a payment obligation for the aid beneficiary to the state. This reduces the burden on the state budget.

Finally, the Carbon Contracts for Difference complete the package of regulatory measures (such as the Greenhouse Gas Emissions Trading Act (TEHG), Energy Efficiency Act (EnEfG), Federal Immission Control Act (BImSchG) and the existing funding programmes. This creates a reliable framework for the transition to a climate-neutral, competitive economy.

Overall, Carbon Contracts for Difference therefore create a secure investment framework for companies and initiate the transformation in Germany at an early stage. However, the state not only bears the economic risk for the macrosocially necessary climate protection, but also is involved in the economic opportunities of switching to climate-friendly technologies. This mechanism makes Carbon Contracts for Difference a modern and efficient instrument for climate protection and funding policy.

## 2. DEFINITIONS

The following terms are used in this funding guideline:

- 2.1 **Absolute energetic carrier use:** the quantity of an energy carrier used in the project in megawatt hours (MWH). The conversion into energy units is carried out using the net calorific value of the energy carrier used.
- 2.2 **Absolute greenhouse gas emission reductions:** the reduction in greenhouse gas emissions in tonnes of CO<sub>2</sub> equivalents achieved in the transformative production process compared to the reference system for the same planned or actually realized production volume.
- 2.3 **Other funding:** funding received by the aid beneficiary outside these funding guidelines for the same eligible investments, expenditure and costs, provided that these can be qualified as funding within the meaning of Article 107(1) of the Treaty on the Functioning of the European Union (TFEU) or as centrally managed Union funds that are not directly or indirectly subject to German control. Funding that was not granted directly for the project funded in accordance with these funding guidelines is also covered under the conditions of sentence 1. It is not qualified as other funding if the investments, expenses and costs of the aid beneficiary within the meaning of sentence 1 are not covered by the maximum total funding amount within the meaning of Number 7.4(b), unless otherwise required by EU law.
- 2.4 **Offer:** offer to conclude the Carbon Contract for Difference.
- 2.5 **Plant:** a permanent establishment or other fixed facility.
- 2.6 **Plant operator:** a natural or legal person or partnership with legal capacity that has direct decision-making authority over a plant and bears the economic risks. Anyone who operates a plant requiring a licence within the meaning of the Federal Immission Control Act (BImSchG) is a plant operator pursuant to sentence 1.
- 2.7 **Granting authority:** the granting authority is the BMWK. The BMWK reserves the right to entrust the administration of the funding measure to a project management organization in accordance with Number 44 (3) of the Federal Budget Code (BHO) ("Beleihung") or to appoint it as an administrative assistant. The project management organization will be announced in the Federal Gazette. In the case of a "Beleihung", the project management organization performs the tasks of the granting authority.
- 2.8 **Balanced energy carrier use:** energy carrier use that is not opposed by the physical use of the specified quantities in the project, but only, for example, by the submission of certificates or guarantees of origin in a mass balance system.
- 2.9 **Biomass:** the biodegradable fraction of products, waste and residues of biological origin from agriculture, including plant and animal materials, forestry and related industries,

including fisheries and aquaculture, the biodegradable fraction of waste, including industrial and domestic waste of biological origin, as well as raw materials and energy carriers whose energy content is derived from biological sources, including biological hydrogen derivatives.

- 2.10 **Low-carbon hydrogen:** Hydrogen whose energy content stems from non-renewable sources and which, in terms of greenhouse gas emission reductions, achieves a minimum threshold of 70 % of the fossil fuel comparator for renewable fuels of non-biological origin, as defined in the methodology adopted pursuant to Art. 29a(3) of Directive (EU) 2018/20011 for the assessment of greenhouse gas emission savings from renewable fuels of non-biological origin and recycled carbon fuels or equivalent Union legislation, in the version currently in force. Until the adoption of a delegated act pursuant to Art. 9(5) of Directive (EU) 2024/17882, the life-cycle greenhouse gas emission savings shall be calculated in accordance with the methodology established by Commission Delegated Regulation (EU) 2023/11853 in the version currently in force.
- 2.11 **Energetic use:** Any use of an energy carrier if the main purpose of the use is the use as an energy carrier for the provision of heat, electricity or power.
- 2.12 **Funding call:** Announcement by the granting authority of a competitive bidding procedure with a fixed funding budget. As a rule, two funding calls should be published per calendar year.
- 2.13 **Bidding procedure:** A competitive procedure initiated by a funding call from the granting authority, in which interested companies can submit an application for funding and concluding a Carbon Contract for Difference.
- 2.14 **Green surplus revenue:** The surplus revenue that the aid beneficiary can generate by achieving higher prices for the sale of products manufactured using the subsidized climate-friendly production process than for products manufactured using conventional production processes.
- 2.15 **Green hydrogen:** Hydrogen produced from water by electrolysis and for the production of which the electricity used was generated exclusively from renewable energy carriers, whereby the production of this electricity must meet the requirements of Commission Delegated Regulation (EU) 2023/11844 in the currently valid version. The life cycle

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<sup>1</sup> Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82), as last amended by Directive (EU) 2024/1711 of the European Parliament and of the Council of 13 June 2024 amending Directives (EU) 2018/2001 and (EU) 2019/944 as regards improving the design of the electricity market in the Union (OJ L, 2024/1711, 26.6.2024).

<sup>2</sup> Directive (EU) 2024/1788 of the European Parliament and of the Council of 13 June 2024 on common rules for the internal markets for renewable gas, natural gas and hydrogen, amending Directive (EU) 2023/1791 and repealing Directive 2009/73/EC (OJ L, 2024/1788, 15 July 2024).

<sup>3</sup> Commission Delegated Regulation (EU) 2023/1185 of 10 February 2023 supplementing Directive (EU) 2018/2001 of the European Parliament and of the Council by establishing a minimum threshold for greenhouse gas savings from recycled carbon fuels and a methodology for determining greenhouse gas savings from renewable liquid or gaseous transport fuels of non-biological origin and from recycled carbon fuels (OJ L 157, 20.6.2023, p. 20).

<sup>4</sup> Commission Delegated Regulation (EU) 2023/1184 of 10 February 2023 supplementing Directive (EU) 2018/2001 of the European Parliament and of the Council by establishing a Union method laying down detailed rules for the production of renewable liquid and gaseous transport fuels of non-biological origin (OJ L 157, 20.6.2023, p.

greenhouse gas emission savings shall be calculated according to the method defined in the current version of Commission Delegated Regulation (EU) 2023/1185. With regard to the reduction of greenhouse gas emissions, the minimum threshold for life cycle greenhouse gas emission savings of 70 % compared to a fossil fuel comparator must be achieved. According to Delegated Regulation (EU) 2023/1185, this reduction must be demonstrated against a comparative value of 94 g CO<sub>2</sub> equivalent/MJ.

- 2.16 **Industrial steam:** Steam used as a carrier medium for process heat to manufacture industrial products as defined by Number 4.17(g) 1st clause.
- 2.17 **Negative emissions:** Capture of carbon dioxide (CO<sub>2</sub>) or other greenhouse gases from the use of energy carriers that are assigned an emission factor of zero on the basis of the version of Commission Implementing Regulation (EU) 2018/2066 current at the time of the calculation or corresponding requirements under Union law, or removal of carbon dioxide (CO<sub>2</sub>) or other greenhouse gases from the atmosphere through geochemical or chemical activities and permanent storage or sequestration of the captured or extracted greenhouse gases. Insofar as the regulations relevant for the assessment of emissions in the EU ETS provide for a different definition, this term shall apply accordingly for the purposes of this funding guideline.
- 2.18 **Non-biological hydrogen derivatives:** gaseous or liquid energy carriers and raw materials based on hydrogen (e.g. methane, ammonia, methanol and synthetic fuels).
- 2.19 **Operational start:** Date of the first intended use or partial use of the subsidized plants after completion of a trial operation. Trial operation is the temporary operation of a plant to test its operational capability prior to the first intended use of the subsidized plants and therefore does not constitute the operational start of works.
- 2.20 **Process emissions:** Greenhouse gas emissions that are not greenhouse gas emissions from combustion and that result from an intentional or unintentional reaction between substances or their transformation, including the chemical or electrolytic reduction of metal ores, the thermal decomposition of substances and the generation of substances for use as a product or feedstock.
- 2.21 **Process heat:** Heat that is required for technical processes for the manufacture, further processing or refinement of products and can be transferred for this purpose via steam, air, water, oils or other carriers.
- 2.22 **Reference system:** The most efficient and low-emission conventional source production technology available for the respective product at the time of the funding call, which is used to determine the greenhouse gas emission reductions from the funded plant constellation and for the dynamisation of the energy carrier costs. If a reference system is

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11), last amended by Commission Delegated Regulation (EU) 2024/1408 of 14 March 2024 amending Commission Delegated Regulation (EU) 2023/1184 as regards adapting a technical term in order to align it with Directive (EU) 2018/2001 of the European Parliament and of the Council (OJ L, 2024/1408, 21.05.2024).

<sup>5</sup> Commission Delegated Regulation (EU) 2023/1185 of 10 February 2023 supplementing Directive (EU) 2018/2001 of the European Parliament and of the Council by establishing a minimum threshold of greenhouse gas emissions savings from recycled carbon and a methodology for calculating greenhouse gas emissions savings from recycled carbon fuels, renewable liquid and gaseous transport fuels of non-biological origin (OJ L 157, 20.06.2023, p. 20).

used that does not relate to a product, the selection of the reference system is determined by the project's production technology.

- 2.23 **Relative energy carrier use:** The absolute use of an energy carrier in relation to the absolute use of energetic carriers in the project in total.
- 2.24 **Relative greenhouse gas emission reduction:** The absolute greenhouse gas emission reduction of the project divided by the absolute greenhouse gas emissions of the reference system. For the purposes of these funding guideline, a distinction can be made between planned relative greenhouse gas emission reductions and actually realized relative greenhouse gas emission reductions.
- 2.25 **Greenhouse gas emissions that are difficult to avoid:** Greenhouse gas emissions that can only be avoided in the medium to long term. This is the case if the necessary technology has not yet matured or its use would currently lead to disproportionately high avoidance costs.
- 2.26 **Secondary energy carriers:** Electricity and energy carriers produced from fossil raw materials.
- 2.27 **Securities:** Bank guarantees and bank sureties.
- 2.28 **Specific energy carrier use:** The use of an energy carrier in relation to the unit of quantity of the product of a reference system.
- 2.29 **Specific greenhouse gas emission reduction:** The difference between the greenhouse gas emissions of the reference system and the remaining residual emissions of the production system operated in the transformative production process in accordance with Number 7.1(e) per tonne of product manufactured.
- 2.30 **Material use:** Any use of an energy carrier other than energetic use and processing into materials intended for use as fuel or other means of energetic use.
- 2.31 **System boundaries:** System configuration for carrying out all key production steps required to manufacture all intermediate products and the product, which are carried out at the sites covered by the Carbon Contract for Difference.
- 2.32 **Transformative production process:** a production process that is
- (a) characterized by fundamental technological changes to conventional production processes, and
  - (b) entails a significant need for investment in new technologies that are not yet established on the market or set the market price, and
  - (c) substitutes fossil fuels or raw materials with climate-friendly energy carriers or raw materials (such as electricity, hydrogen, biomass).

A production process is also transformative if carbon capture and storage (CSS) or carbon capture and use (CCU) technologies are used in accordance with number 4.15 and the current state of science and technology.

A production process that does not contribute to the climate neutrality of the industry is not transformative.

- 2.33 **Greenhouse gases:** CO<sub>2</sub>, methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulphur hexafluoride (SF<sub>6</sub>), nitrogen trifluoride (NF<sub>3</sub>) as well as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) in accordance with Annex V Part 2 of the European Governance Regulation<sup>6</sup> as amended.
- 2.34 **Greenhouse gas emissions:** The anthropogenic release of greenhouse gases covered by Number 7.1(e) in tonnes of CO<sub>2</sub> equivalent, where one tonne of CO<sub>2</sub> equivalent is one tonne of CO<sub>2</sub> or the amount of another greenhouse gas with a global warming potential equivalent to one tonne of CO<sub>2</sub>; the potential is determined in accordance with Commission Delegated Regulation (EU) 2020/10447 according to the currently valid version, or any successor regulation adopted pursuant to Article 26(6)(b) according to the currently applicable version of the European Governance Regulation.
- 2.35 **Surplus payments:** Payments made by the aid beneficiary under the Carbon Contract for Difference in the event of a negative difference between the Base Contract Price pursuant to Number 7.1(a)(i) or the dynamised contract price pursuant to 7.1(a)(ii) and the effective CO price to the grantor.
- 2.36 **Union standard:** Any binding Union standard on the level of environmental protection to be achieved by individual companies, but not standards or targets set at Union level which are binding on Member States but not on individual companies.
- 2.37 **Upstream reference systems:** Reference systems that do not relate to the funded product, but to a preliminary product that is further processed into the funded product in the project. The funding call specifies which reference systems are defined as upstream reference systems.
- 2.38 **Start of works:** The first firm commitment (e. g. order of equipment or start of construction work) that renders an investment irreversible, including the conclusion of a supply or service contract attributable to the execution of the project to be promoted by the applicant or a member of a consortium within the meaning of Number 5.2, as well as by affiliated companies within the meaning of § 15 et seq. of the German Stock Corporation Act (Aktiengesellschaftsgesetz – AktG). The purchase of land or preparatory works such as obtaining permits or carrying out feasibility studies in advance are not considered to be the beginning of a project. In the case of acquisitions of non-affiliated companies within the meaning of Numbers 15 et seq. AktG, the start of works is the time of acquisition of the assets directly associated with the acquired business premises. There

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<sup>6</sup> Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) Number 525/2013 of the European Parliament and of the Council (OJ L 328, 21.12.2018, p. 1), as last amended by guideline (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending guideline (EU) 2018/2001 and amending Regulation (EU) 2018/1999 and guideline 98/70/EG in regard to the promotion of energy from renewable sources and the annulment of guideline (EU) 2015/652 of the Council (AB L, 2023/2413, 31.10.2023).

<sup>7</sup> Commission Delegated Regulation (EU) 2020/1044 of 8 May 2020 supplementing Regulation (EU) 2018/1999 of the European Parliament and of the Council with regard to global warming potential values and inventory guidelines and with regard to the Union inventory system, and repealing Commission Delegated Regulation (EU) No 666/2014 (OJ L 230, 17.7.2020, p. 1).

is no start of works within the meaning of these funding guidelines if a right of cancellation or a condition subsequent is agreed in a supply or service contract attributable to the execution in the event that the application is definitively rejected or a condition precedent is agreed in the event that the application is approved and the supply or service contract is not executed by the time is notified of the grant notification.

- 2.39 **Hydrogen:** physically used or, in accordance with Number 4.9, sentence 2, as such attributed green and low-carbon hydrogen. Hydrogen whose energy content stems from biological sources falls exclusively under the definition of biomass as defined in Number 2.9. By way of derogation, hydrogen whose energy content stems from biological sources and which is obtained from a network infrastructure used solely for the physical supply of hydrogen is considered to be hydrogen.
- 2.40 **Hydrogen derivatives:** biological and non-biological hydrogen derivatives.
- 2.41 **Recycled carbon fuels:** liquid and gaseous fuels produced from liquid or solid waste streams of non-renewable origin that are not suitable for recycling in accordance with Article 4 of Directive 2008/98/EC<sup>8</sup> or equivalent Union legislation, as amended, and from gas from waste processing and waste gas of non-renewable origin that are inevitably and unintentionally produced as a result of production processes in industrial plants.
- 2.42 **Intermediate products:** Products from key production steps that are necessary to manufacture the product and are relevant for its greenhouse gas accounting. Process heat is considered an intermediate product. Hydrogen, secondary energy carriers, recycled carbon fuels and biomass, with the exception of materially utilised biological hydrogen derivatives, are not considered intermediate products. Hydrogen derivatives are not considered intermediate products if they are used for energetic purposes.

### 3. LEGAL BASIS, FUNDING OBJECTIVE, PURPOSE OF THE GRANT, RESPONSIBILITY

- 3.1 The Federal Government grants subsidies for additional costs of transformative production processes based on Carbon Contracts for Difference in emission-intensive sectors, in particular in accordance with these funding guidelines, the Federal Administrative Procedure Act, the German Civil Code, §§ 23 and 44 of the Federal Budget Code, taking into account the general administrative regulations issued for this purpose and in accordance with the Commission Communication, Guidelines on State Aid for Climate Action, Environmental Protection and Energy 2022<sup>9</sup> and the European Commission Decision from [•] which are relevant to these funding guidelines. The funding is awarded by issuing a grant notification and concluding a Carbon Contract for Difference under private law. The Carbon Contract for Difference also regulates the possible surplus payments by the aid beneficiary.

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<sup>8</sup> Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (OJ L 312, 22.11.2008, p. 3), as last amended by Regulation (EU) 2023/1542 of the European Parliament and of the Council of 12 July 2023 on batteries and waste batteries, amending Directive 2008/98/EC and Regulation (EU) 2019/2010 and repealing Directive 2006/66/EC (OJ L 191, 28.7.2023, p. 1).

<sup>9</sup> Communication from the Commission, Guidelines on State aid for climate action, environmental protection and energy 2022 (OJ C 80, 18.2.2022, p. 1).



- 3.2 Carbon Contracts for Difference should enable a rapid and continuous transformation of the industry towards climate neutrality by 2045 in a cost-efficient manner by
- (a) funding the construction and operation of transformative production processes of particularly large industrial plants in hard-to-abate sectors, which lead to high greenhouse gas savings and which thus establish themselves on the market,
  - (b) the funding will indirectly build the infrastructure, lead markets, knowledge and expertise required for decarbonisation as a whole, and
  - (c) funding only processes with a high level of value chain integration that fit in with the German government's industrial and energy strategy and are also climate-friendly from a global perspective.
- 3.3 To achieve the objectives set out in Number 3.2 additional costs due to greenhouse gas emission reductions through low-emission production processes compared to the respective reference system are subsidized (purpose of the funding).
- 3.4 The granting authority is responsible for the procedure, the decision on the grant, the issuing of the grant notification ("Zuwendungsbescheid") and the conclusion of the Carbon Contract for Difference. The granting authority may appoint a scientific advisory board to advise the granting authority on issues relating to the funding programme, notwithstanding the responsibilities set out in sentence 1. The scientific advisory board may only be composed of persons who do not have a conflict of interest with one or more potential or actual applicants or aid beneficiaries or companies affiliated with them within the meaning of Numbers 15 et seq. AktG and who have proven technical expertise with regard to transformative production processes or the incentive effect of funding programmes. Appointments are made in consultation with the Federal Ministry of Finance (BMF).
- 3.5 Unless expressly stipulated otherwise, the legal and administrative regulations referred to in these funding guidelines shall apply in the version valid at the time of the announcement of the respective funding call.

#### **4. OBJECT OF THE FUNDING**

- 4.1 According to the concept of CO<sub>2</sub> contracts for difference, Carbon Contracts for Difference are intended to offset the additional costs incurred by companies from hard-to-abate sectors as a result of the construction of more climate-friendly plants or the conversion of plants to more climate-friendly plants (CAPEX) and their operation (OPEX) compared to efficient and low-emission conventional plant constellations.
- 4.2 Operational start
- (a) Each Carbon Contract for Difference has a term of 15 years. The contract term is defined in the Carbon Contract for Difference and begins with the operational start of works, at the latest 36 months after the grant notification becomes final. A different period of up to 48 months can be specified in the funding call. When setting the deadline in the funding call, the granting authority will take into account, in particular, the duration of approval procedures that must be carried out for the creation of the infrastructure for the implementation of transformative production processes, as well as the case that the

infrastructure for the implementation of transformative production processes will probably only be established by the aid beneficiaries as part of the funded project.

- (b) The granting authority may stipulate in the funding call that the deadline for the Operational start may be extended under certain conditions upon the award of the contract, in particular if the applicant clearly demonstrates when submitting the application for funding that the infrastructure required to implement the project will not be available until a later date for reasons for which it is not responsible.
  - (c) The granting authority may extend the deadline for the operational start beyond the deadline specified in the funding call or Carbon Contracts for Difference after the grant award has become final at the request of the aid beneficiary if the aid beneficiary demonstrates that it cannot start the subsidized project within the original deadline for reasons beyond their control that arose after the application for funding was submitted, in particular due to force majeure.
  - (d) If the project commences operations during the year, the contract term extends over 16 calendar years, i.e. the term of the Carbon Contract for Difference covers the following periods in this case: firstly, the period from the actual operational start of works up to and including 31 December of the calendar year in which the operational start occurs ("first partial year"), secondly, 14 complete calendar years following the first partial year and thirdly, the period, which starting on 1 January of the calendar year following the end of the 14 full calendar years, includes the days remaining of the 15 years from the operational start after deduction of the first partial year and the 14 full calendar years ("last partial year"; the first partial year and the last partial year together are the "partial years").
- 4.3 Only those industrial activities whose products provide equivalent or better functionality compared to products of the corresponding reference systems covered by Annex I to Directive 2003/87/EC<sup>10</sup> will be funded. Any subsequent amendments to Annex I of Directive 2003/87/EC will not be taken into account. Projects according to number 4.17 will not be funded.
- 4.4 Additional costs for the manufacture of products for which a reference system is defined in the funding call are eligible for funding. Additional costs and the determination of greenhouse gas emissions are only eligible for funding for the production quantities for which the aid beneficiary itself manufactures all intermediate products in the project funded by the Carbon Contract for Difference. The granting authority may specify this regulation in the funding call.
- 4.5 The production of hydrogen derivatives is generally eligible for funding as part of the subsidized projects. If these hydrogen derivatives are transferred to a third party for use, suitable evidence must be provided to show what the third party will use these hydrogen

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<sup>10</sup> Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32), as last amended by Regulation (EU) 2024/795 of the European Parliament and of the Council of 29 February 2024 on the establishment of the Strategic Technologies for Europe Platform (STEP) and on amending Directive 2003/87/EC and the Regulations (EU) 2021/1058, (EU) 2021/1056, (EU) 2021/1057, (EU) Number 1303/2013, (EU) Number 223/2014, (EU) 2021/1060, (EU) 2021/523, (EU) 2021/695, (EU) 2021/697 und (EU) 2021/241 (OJ L, 2024/795, 29.02.2024).

derivatives for. Only that portion of the hydrogen derivatives that is not used for energetic use or the production of substances for energetic use, even outside the funded facilities, is eligible for funding.

- 4.6 A project may involve the manufacture of several products that can be assigned to different reference systems if several products can be manufactured with one system or if there is a technological network on the basis of which several products are manufactured. A technological network exists if a transfer of intermediate products is necessary with regard to the products to be manufactured and actually takes place. In the case of sentence 1 in the bidding procedure as the sum of its components. The amount of the annual grant or the surplus payment (number 4.8) is to be determined from the sum of the components of the project. Further details are set out in Appendix 3.
- 4.7 Each individual production plant must be such that its reference system would be covered by the EU ETS 1 in terms of its production capacity or rated thermal input in accordance with Annex I to Directive 2003/87/EC<sup>11</sup>.
- 4.8 The amount of the annual allowance or the surplus payment is calculated in accordance with the 0 in Number 7.
- 4.9 The hydrogen used must fulfil the requirements for green or low-carbon hydrogen. If hydrogen is obtained from a network infrastructure that is used exclusively for the physical supply of hydrogen, the aid beneficiary must prove to the granting authority that the hydrogen obtained via the network infrastructure is attributed to the aid beneficiary as green or low-carbon hydrogen and that green or low-carbon hydrogen has been fed into the network infrastructure in the same quantity. The granting authority may, if it considers this necessary for reasons of incentive effect, specify in the funding call the locations of electrolysis plants with a capacity of more than ten megawatt (MW) for the purchase of green hydrogen in order to ensure system and grid-friendly operation and at the same time to ensure that industrial hydrogen requirements are met on site, especially during the ramp-up phase of the hydrogen supply. Hydrogen produced from non-biological hydrogen derivatives will be treated the same as green hydrogen or hydrogen with a low CO<sub>2</sub> content, provided that it meets the sustainability criteria and greenhouse gas reduction criteria for green hydrogen or hydrogen with a low CO<sub>2</sub> content as currently applicable in binding legal acts and that the introduction or expansion of transformative production processes serves. As an alternative to green or low-carbon hydrogen, non-biological hydrogen derivatives can also be used if they comply with the sustainability criteria and greenhouse gas reduction criteria from binding legal acts currently applicable to green or low-carbon hydrogen and serve the introduction or expansion of transformative production processes. Number 7.1(g) remains unaffected by this. In the funding call, the granting authority may define exceptions to sentences 1 and 2 for individual systems specified therein.

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<sup>11</sup> Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32), as last amended by Regulation (EU) 2024/795 of the European Parliament and of the Council of 29 February 2024 on the establishment of the Strategic Technologies for Europe Platform (STEP) and on amending Directive 2003/87/EC and Regulations (EU) 2021/1058, (EU) 2021/1056, (EU) 2021/1057, (EU) Number 1303/2013, (EU) Number 223/2014, (EU) 2021/1060, (EU) 2021/523, (EU) 2021/695, (EU) 2021/697 und (EU) 2021/241 (OJ L, 2024/795, 29.2.2024).

#### 4.10 Energetic use of biomass

- (a) The energetic use of biomass is permitted if the applicant can prove that direct electrification is technically not possible and that the physical use of hydrogen or non-biological hydrogen derivatives is technically or economically not available in the foreseeable future, and if the planned use of biomass is scalable in view of the limited biomass potential that is sustainably available. The granting authority will specify in the funding call how this evidence is to be provided, taking into account the state of the art. The energetic use of biomass should be limited to residual and waste materials and to raw materials and energy carriers obtained from residual and waste materials.
- (b) The energetic use of biomass is also permissible if the biomass used consists of residual and waste materials from the locations covered by the Carbon Contract for Difference of the funded transformative production process, or of raw materials and energy carriers obtained from such residual and waste materials at the locations covered by the Carbon Contract for Difference.
- (c) If the use of biomass is permitted, the aid beneficiary must provide evidence of the origin and source of the biomass used as part of the funding. Energy from biomass used must fulfil the requirements of the Biomass Ordinance, the Biomass Electricity Sustainability Ordinance, the principle of cascading use of Article 3(3) of Directive (EU) 2018/2001<sup>12</sup>, the sustainability criteria and the greenhouse gas reduction criteria of Article 29 of Directive (EU) 2018/2001 and other EU legislation in the respective current versions. Regardless of their categorization as large combustion plants, all plants for the use of biomass must comply with the emission limit value pursuant to Number 29(1)(1)(a) in conjunction with Number 3 of the 13th Ordinance on the Implementation of the Biomass Ordinance. § Number 3 of the 13th Ordinance on the Implementation of the Federal Immission Control Act. The granting authority can make further specifications regarding the use of biomass for energy in the funding call.

4.11 The material use of biomass in a funded project is permitted. The granting authority will stipulate additional requirements in the funding call if this is provided for in the National Biomass Strategy.

4.12 The use of recycled carbon fuels is permitted, if they

- (a) achieve the minimum greenhouse gas emission reduction threshold of 70 % of the fossil fuel comparator for renewable fuels of non-biological origin, as specified in the methodology adopted in accordance with Article 29a (3) of Directive (EU) 2018/2001<sup>13</sup>, in the version currently in force, and

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<sup>12</sup> Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82), as last amended by Directive (EU) 2024/1711 of the European Parliament and of the Council of 13 June 2024 amending Directives (EU) 2018/2001 and (EU) 2019/944 as regards improving the design of the electricity market in the Union (OJ L 2024/1711, 26.6.2024).

<sup>13</sup> Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82), as last amended by Directive (EU) 2024/1711 of the European Parliament and of the Council of 13 June 2024 amending Directives (EU) 2018/2001 and (EU) 2019/944 as regards improving the design of the electricity market in the Union (OJ L, 2024/1711, 26.6.2024).

- (b) serve the introduction or expansion of transformative production processes.
- 4.13 The material and energetic use of natural gas in a subsidized project is only permitted if the applicant can prove that direct electrification is technically not possible and that the physical use of hydrogen or non-biological hydrogen derivatives is technically or economically not available in the foreseeable future. The granting authority will specify in the funding call how this evidence is to be provided, taking into account the global state of the art. Applicants must also show with their application when and how the material and energetic use of natural gas will be reduced during the term of the Carbon Contract for Difference. The requirements in sentences 1-3 apply to any physical use of natural gas, regardless of whether certificates or guarantees of origin are submitted for other energy carriers. The possibility of energetic and material use of biomass does not preclude the use of natural gas.
- 4.14 The energetic use of the most environmentally harmful fossil fuels as defined in the Guidelines on State aid for climate, environmental protection and energy 2022<sup>14</sup>, such as hard coal, diesel, lignite, oil, peat and oil shale, is not permitted, except in the first ten years, calculated from the operational start of the funded project, insofar as this is technically necessary as part of the conversion of existing conventional production processes to more climate-friendly production in the project to be funded. Projects in which new investments are to be made in production processes based on the most environmentally harmful fossil fuels do not fulfil this requirement. Number 4.13 remains unaffected by this.
- 4.15 CCS and CCU
- (a) (Projects in which greenhouse gas emission reductions are achieved through carbon capture and storage (CCS) or carbon capture and use (CCU) technologies are eligible for funding, provided that
    - (i) the greenhouse gas emissions from the plant, without the use of capture technologies, consist for the most part of process emissions and, at the time of publication of the respective funding call, the remaining greenhouse gas emissions cannot be reduced in the foreseeable future by using electricity, hydrogen and alternative raw materials. Insofar as biomass is used in the plant which is residual and waste material from the funded transformative production process at the locations covered by the Carbon Contract for Difference, biogenic greenhouse gas emissions from the use of this biomass, valued at zero, are not taken into account when determining the share of process emissions in the remaining greenhouse gas emissions,
- or
- (ii) the plant predominantly emits greenhouse gases that are difficult to avoid, and it is at the time of publication of the respective funding call not foreseeable possible to reduce these emissions by using technologies that use electricity, hydrogen or alternative raw materials, because these technologies will not reach market maturity in the foreseeable future and are not available for large-scale use on the market

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<sup>14</sup> Communication from the Commission, Guidelines on State aid for climate action, environmental protection and energy 2022 (OJ C 80, 18.2.2022, p. 1).

or

- (iii) the captured CO<sub>2</sub> comes from an existing waste incineration plant within the meaning of the 17<sup>th</sup> Ordinance for the Implementation of the Federal Immission Control Act (including hazardous waste incinerators), insofar as the captured CO<sub>2</sub> is attributed to the “industry” sector within the meaning of Annex 1 of the Federal Climate Action Act and it is produced at the generation of an intermediate product that is used to manufacture industrial products within the meaning of number 4.17(g) 1. clause in the project,

and

- (iv) the connection to the necessary transport and storage infrastructures is adequately secured. In the funding call, the granting authority can specify more detailed requirements regarding proof of connection to the necessary transport and storage infrastructures.

The requirements under (a) must be met with regard to the planned greenhouse gas emissions of the plants for each calendar year within the term of the Carbon Contract for Difference in which CCS or CCU technologies are used. The requirements under Numbers 4.9 to 4.14 for energy carriers used in projects with CCS and CCU technologies remain unaffected. In the funding call, the granting authority may make further specifications regarding this number or restrict funding to certain case groups of this number. In addition, the granting authority can include provisions in the funding call according to which certain projects in which greenhouse gas emissions are reduced by means of CCS or CCU technologies are funded on a subordinate basis. When the granting authority decides on a funding application, the key elements of the carbon management strategy and the carbon management strategy itself must be taken into account with regard to the eligibility of projects under this number. If and to the extent that the key elements of the carbon management strategy and the carbon management strategy contradict each other, the carbon management strategy takes precedence over the key elements of the carbon management strategy. The sources and quantities of greenhouse gas emissions to be captured must be verified by the applicant by stating the energy carriers and raw and auxiliary materials of the project.

- (b) Greenhouse gas emissions reductions achieved through the use of CCS or CCU technologies are only taken into account in the calculation of the planned and actual greenhouse gas emission reductions of the project if they meet the currently applicable requirements of the EU ETS 1 for the proof of permanent storage or binding of the CO<sub>2</sub>, in particular with the consequence that no obligation to surrender allowances arises or the sequestered greenhouse gas emissions are to be deducted from the greenhouse gas emissions of the plant.
- (c) For projects in which greenhouse gas emission reductions are achieved through CCS technologies, the system boundaries are to be determined, in deviation from number 2.31 in such a way that the CO<sub>2</sub> capture and transmission to a CO<sub>2</sub> transport infrastructure for long-term storage also occurs within the meaning of Commission Implementing

Regulation (EU) 2018/2066<sup>15</sup>, in the version currently in force, (“CO<sub>2</sub> transport infrastructure”) for the purpose of long-term storage within the system boundaries of the project. All plant components used for CO<sub>2</sub> capture and its transportation to a CO<sub>2</sub> transportation infrastructure for the purpose of long-term storage are to be taken into account. The CO<sub>2</sub> transportation infrastructure to which the captured CO<sub>2</sub> is transported lies outside the system boundaries.

- (d) Operators of CO<sub>2</sub> capture plants that are to be funded can become part of a consortium in the cases of Number 4.15(a) independently of the requirements under number 5.2 sentences 1-2, provided that CO<sub>2</sub> produced during the manufacture of funded products is to be forwarded to the CO<sub>2</sub> capture plant for the purpose of capture and forwarding to a CO<sub>2</sub> transport infrastructure for long-term storage.

4.16 The projects must fulfil the following minimum requirements:

- (a) The project must have a minimum size of absolute average annual greenhouse gas emissions in the reference system. The minimum size is determined by the granting authority with the funding call. It is at least 5 kt CO<sub>2</sub> equivalents per calendar year.
- (b) The project is compatible with the climate protection goals of the Federal Republic of Germany and the EU. This is particularly the case under the following conditions:
  - (i) From the third full calendar year at the latest within the term of the Carbon Contract for Difference, the relative reduction in greenhouse gas emissions must be at least 60 % compared to the reference system.
  - (ii) A relative reduction in greenhouse gas emissions of at least 90 % compared to the reference system must be technically feasible with the technologies used, using appropriate energy carriers and raw materials, within the term of the Carbon Contract for Difference and must be achieved in the last 12 months of the term of the Carbon Contract for Difference (climate neutrality access criterion).
  - (iii) The granting authority can set higher thresholds for (i) and (ii) in the funding call.
  - (iv) With the funding call, the granting authority may set higher thresholds for (i) and (ii) with the threshold values to (i) and (ii) must be achieved regardless of any use of hydrogen in the balance sheet. Number 7.1(a)(iv) sentence 3 applies accordingly.

4.17 The following are not eligible:

- (a) projects that have already begun at the time the application is submitted (start of works pursuant to Number 2.38. Projects for which the existence of the incentive effect has already been confirmed by the European Commission under state aid law or if the granting authority has authorised an early start of works and determined eligibility for funding in accordance with these funding guidelines remain eligible for funding; or

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<sup>15</sup> Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) Number 601/2012 (OJ L 334, 31.12.2018, p. 1), as last amended by Commission Implementing Regulation (EU) 2024/2493 of 23 September 2024 amending Implementing Regulation (EU) 2018/2066 as regards updates to the monitoring and reporting of greenhouse gas emissions under Directive 2003/87/EC of the European Parliament and of the Council (OJ L, 27.9.2024, p. 1).

- (b) projects that are exclusively for the production of secondary energy carriers, recycled carbon fuels, carbon dioxide, hydrogen or energy carriers whose energy content stems from biological sources, with the exception of biological hydrogen derivatives; the funding of the production of hydrogen derivatives is determined in accordance with Number 4.5; or
- (c) projects for which the maximum total funding amount under Number 7.4(b) is less than EUR 15 million; the granting authority may specify a different threshold in the funding call; or
- (d) projects for which the maximum total funding amount under Number (a)a(b) exceeds the total amount of a funding call; or
- (e) projects that serve exclusively to transport greenhouse gases; or
- (f) projects that are exclusively for the geological storage of greenhouse gases; or
- (g) projects that do not directly serve the manufacture of industrial products; for projects that serve the production of industrial steam, the granting authority may define exceptions to this Number and stipulations for eligibility in the funding call; or
- (h) production in plants that are not operated on the territory of the Federal Republic of Germany; or
- (i) production in plants that are not such that their reference system would be covered by the EU ETS 1 in terms of capacity or rated thermal input in accordance with Annex I to Directive 2003/87/EC<sup>16</sup>; or
- (j) projects that cannot be continued after the end of the term of the Carbon Contract for Difference without state funding; or
- (k) projects that do not make a particular contribution to realizing the objectives of these funding guidelines; or
- (l) projects that are already being funded under the Carbon Contracts for Difference funding programme; or
- (m) projects for which the applicant has already applied for funding under another funding programme of the European Union, the Federal Government or a federal state or which are already being funded under another funding programme, provided that the funding call stipulates this; the other requirements for other funding within the meaning of Number 2.3 remain unaffected; or
- (n) the additional costs of systems that are already being funded under the Carbon Contracts for Difference funding programme for another project; or

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<sup>16</sup> Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32), as last amended by Regulation (EU) 2024/795 of the European Parliament and of the Council of 29 February 2024 on the establishment of the Strategic Technologies for Europe Platform (STEP) and on amending Directive 2003/87/EC and Regulations (EU) 2021/1058, (EU) 2021/1056, (EU) 2021/1057, (EU) Nr. 1303/2013, (EU) Nr. 223/2014, (EU) 2021/1060, (EU) 2021/523, (EU) 2021/695, (EU) 2021/697 und (EU) 2021/241 (OJ L, 2024/795, 29.2.2024).



- (o) projects that must be implemented in whole or in part due to legal requirements; or
  - (p) projects that fulfil the criteria set out in the funding call under Number (a)a(e) exceed the maximum total funding amount per project; or
  - (q) projects that lead to a significant impairment of the environmental objectives pursuant to Article 17 of Regulation (EU) 2020/852<sup>17</sup>; or
  - (r) projects that do not comply with the applicable Union standards.
- 4.18 Funding is provided for the production portion of the systems and processes that can be attributed to a transformative production method. The granting authority can provide more detailed information on this in the funding call. By way of derogation from this, the granting authority may also provide for additional funding of operating costs for maximum shares of conventional production processes to be specified in the funding call, insofar as this is absolutely necessary for technological reasons.
- 4.19 If the project includes a plant for capturing CO<sub>2</sub> and this plant also captures CO<sub>2</sub> that is not produced in the funded transformative production process, funding for additional costs and the determination of greenhouse gas emissions will only be provided for the proportion of the captured CO<sub>2</sub> that is directly attributable to the funded transformative production process.

## 5. AID BENEFICIARIES

- 5.1 Beneficiary companies within the meaning of § 14 of the German Civil Code, including municipalities, municipally owned companies, municipal companies and municipal special-purpose associations, are eligible to apply if they are economically active ("Eligible applicants"). Applicants must be plant operators of the plant or plants to be subsidised.
- 5.2 Several eligible applicants may form a consortium if they intend to jointly manufacture one or more eligible products in Germany, provided that the total size of the consortium does not exceed the minimum size specified in Number 4.16(a) and there is a technological alliance of the manufacturing processes of the eligible product(s) ("consortium"). A technological network within the meaning of sentence 1 exists if a transfer of intermediate products is necessary with regard to the product(s) to be manufactured and actually takes place. Within the consortium, a member of the consortium must be appointed who submits the application for funding ("consortium leader") and who is authorised to serve notices on behalf of the consortium. Each member of the consortium is the aid beneficiary of the grant and a contracting party to the Carbon Contracts for Difference. The members of the consortium are jointly and severally liable for the obligations arising from the grant notification and the Carbon Contract for Difference and for any surplus payments. Funding is paid to the consortium

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<sup>17</sup> Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 (OJ L 198, 22.06.2020, p. 13), as last amended by Corrigendum to Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088. 13), as last amended by Corrigendum to Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 (Official Journal of the European Union L 198, 22 June 2020) (OJ L 142, 01.06.2023, p. 45).

leader with discharging effect vis-à-vis the consortium members. For a syndicate, Scope 1 issues pursuant to Number 7.1(e) of all participating consortium members are considered joint Scope 1 emissions and the subsidised products of the entire value chain in the consortium are considered joint products. If intermediate products are reused within the consortium, they may also be transferred to non-members of the consortium in the meantime. In the case of a consortium, all plants to be subsidised must be operated by consortium members.

- 5.3 Applicants must be economically and technically capable of realizing the project to be funded. If these requirements are not met, taking into account the information provided in the application and the documents submitted, the application will be rejected.
- 5.4 Not authorised to apply:
- (a) Legal entities that have received unlawful funding which has been declared incompatible with the internal market by a Commission decision (relating to individual funding or a funding scheme). Sentence 1 shall not apply if the total amount of the unlawful and incompatible funding, including the corresponding recovery interest, has been repaid in full or transferred to a blocked account;
  - (b) Companies in difficulty within the meaning of the European Commission guidelines on State aid for rescuing and restructuring non-financial undertakings in difficulty<sup>18</sup>. This includes companies that are subject to insolvency proceedings or that fulfil the conditions for the opening of insolvency proceedings at the request of creditors;
  - (c) Legal entities that have submitted or are obliged to submit a declaration of assets pursuant to Number 802c of the German Code of Civil Procedure or Number 284 of the German Fiscal Code;
  - (d) Legal entities against which the EU has imposed sanctions, such as companies that
    - (i) are explicitly mentioned in the legal acts imposing those penalties, or
    - (ii) owned or controlled by persons, entities or bodies subject to EU sanctions, or
    - (iii) are active in economic sectors against which the EU has imposed sanctions, insofar as the benefits would undermine the objectives of the sanctions in question.

## **6. TYPE OF FUNDING AND SURPLUS PAYMENT OBLIGATION**

### **6.1 Type of funding**

- (a) Grants are awarded by way of project funding in the form of non-repayable grants.
- (b) There is no legal entitlement to the grant. The granting authority decides on the approval of applications at its own discretion and within the scope of the available budget funds.

### **6.2 Surplus payment obligation**

The amount of the surplus payment obligation is determined by the granting authority on the basis of these funding guidelines and the Carbon Contract for Difference.

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<sup>18</sup> Communication from the Commission - Guidelines on State aid for rescuing and restructuring non-financial undertakings in difficulty (OJ C 249, 31.7.2014, p. 1).

## 7. SCOPE OF SUBSIDISATION, SURPLUS PAYMENTS AND REDUCTION OF PRODUCTION IN CONVENTIONAL REFERENCE PLANTS

### 7.1 Annual calculation

- (a) The amount of the grants and the amount of the surplus payments are determined annually by calendar year, even if the project commences operations during the year, and are calculated as follows. Further details are set out in Appendix 1, Numbers 1 and 2.
  - (i) The base contract price forms the basis for determining the amount of the grants and the amount of the surplus payments. The base contract price is the amount that the applicant estimates to cover additional costs compared to the reference system per tonne of avoided greenhouse gas emissions ("base contract price"). When determining the base contract price, applicants should bear in mind that other funding awarded prior to applying are taken into account when calculating the funding cost efficiency in accordance with Number 8.3(e) are taken into account.
  - (ii) The base contract price is calculated in accordance with 7.2 a dynamisation component for the respective funding period ("**dynamised contract price**") is added to the base contract price. The base contract price is thus adjusted to the energy carrier use of the subsidised plant in the corresponding calendar year and the energy carrier use of the dynamised energy carriers. Dynamisation cushions the price risk of energy carriers and thus increases the efficiency of the funding.
  - (iii) The effective CO<sub>2</sub> price incurred for the transformative production process compared to the reference system is deducted from the base contract price or, in the case of dynamisation, from the dynamised contract price. The deduction cushions the risk of CO<sub>2</sub> costs and thus increases the efficiency of the funding.
  - (iv) The resulting difference is multiplied by the specific greenhouse gas emission reduction actually realized compared to the reference system and the realized production volume of the transformative production process. No funding is granted for greenhouse gas emission reductions that are achieved by using hydrogen in the balance sheet. Hydrogen is not used in the balance sheet if hydrogen from a network infrastructure that is used exclusively for the physical supply of hydrogen is physically used in the project.
  - (v) The result is the amount that the aid beneficiary receives from the grantor or – in the event of a negative difference between the base contract price or dynamised contract price and the effective CO<sub>2</sub> price – the surplus payment that the aid beneficiary pays to the grantor. The realised absolute greenhouse gas emission reduction may exceed the planned absolute greenhouse gas emission stated in the application in accordance with Number 8.2(d) or adjusted in accordance with Number 7.9. However, when calculating the amount to be paid out, a maximum of 130 % of the planned absolute greenhouse gas emission reduction shall be taken into account. If no greenhouse gas emission reduction is achieved in a calendar year, the amount paid out is zero euros (Appendix 1, Number 1, paragraph 1).
  - (vi) Of the annual amount calculated in accordance with Number 7.1(a)(i) to (v), any other funding granted after the application has been submitted shall be paid in accordance with Number 7.5(b) shall be deducted. Insofar as other funding already approved at the time of submission of the application is increased after this time, sentence 1 shall apply

accordingly to the amount by which the other funding has increased compared to the time of submission of the application. If the deduction is likely to lead to a permanent reduction in the grant, the maximum annual grant amount and the maximum total grant amount specified in the grant notification shall also be adjusted. Further details are set out in Appendix 1.

- (vii) Of the annual amount calculated in accordance with Number 7.1(a)(i) to (v), the granting authority may stipulate in the funding call that 60 % of the project-specific green surplus revenue be deducted on a sector- or product-specific basis if, in the opinion of the granting authority, the green surplus revenue is unlikely to be sufficiently priced into the bids. The methodology for determining the green surplus will be announced by the granting authority in the funding call. Further details are set out in Appendix 1.
- (b) The effective CO<sub>2</sub> price is calculated from the CO<sub>2</sub> price in the EU ETS 1, the greenhouse gas emissions of the reference system in accordance with Number 7.1(d) and the greenhouse gas emissions of the project in accordance with Number 7.1(e) as well as the free assignments of EU ETS 1 emission allowances for the subsidised project and for the reference system, and the greenhouse gas emission reductions actually achieved compared to the reference system. The calculation of the free assignments of EU ETS 1 emission allowances must be carried out at the time of calculation on the basis of the currently applicable legal situation. In partial years, the free assignments of EU ETS 1 emission allowances received by the subsidised project for the respective calendar year are to be taken into account on a pro rata basis in accordance with the duration of the partial year in the calendar year. The exact calculation of the effective CO<sub>2</sub> price is set out in Appendix 1, Number 1, paragraph 2. The granting authority shall specify the price index for the annual calculation of the effective CO<sub>2</sub> price in the funding call. It may change the published price index with regard to the respective Carbon Contract for Difference for objective reasons. This is possible in particular if the relevant price index is discontinued or the price index is no longer suitable for reflecting the CO<sub>2</sub> price. The affected aid beneficiaries must be informed immediately of any change.
- (c) The reference system within the meaning of Number 2.22 is determined by the granting authority in the funding call, taking into account the provisions of the EU ETS 1. In doing so, the provisions of Commission Delegated Regulation (EU) 2019/331<sup>19</sup> shall be taken into account; for plants with product benchmarks, also Annex I of Directive 2003/87/EC<sup>20</sup>. The reference systems set out in the funding call shall be valid for the entire duration of

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<sup>19</sup> Commission Delegated Regulation (EU) 2019/331 of 19 December 2018 laying down EU-wide transitional provisions for the harmonization of free assignment of emission allowances pursuant to Article 10a of Directive 2003/87/EC of the European Parliament and of the Council (OJ L 59, 27.2.2019, p. 8), as last amended by the Commission Delegated Regulation (EU) 2024/873 of 30 January 2024 for amending Commission Delegated Regulation (EU) 2019/331 with regard to EU-wide transitional provisions for the harmonization of free assignment of emission allowances (OJ L 4.2024).

<sup>20</sup> Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32), as last amended by Regulation (EU) 2024/795 of the European Parliament and of the Council of 29 February 2024 on the establishment of the Strategic Technologies for Europe Platform (STEP) and on amending Directive 2003/87/EC and Regulations (EU) 2021/1058, (EU) 2021/1056, (EU) 2021/1057, (EU) Number 1303/2013, (EU) Number 223/2014, (EU) 2021/1060, (EU) 2021/523, (EU) 2021/695, (EU) 2021/697 und (EU) 2021/241 (OJ L, 2024/795, 29.2.2024).

the Carbon Contract for Difference concluded in the respective bidding procedure. Any subsequent amendments to Annex I of Directive 2003/87/EC are not taken into account. In addition to the indication of the specific greenhouse gas emissions related to the production volume, the reference system also includes the indication of the specific energy carrier use related to the production volume.

- (d) The specific greenhouse gas emissions of the reference system are determined by the granting authority in the funding call and are calculated on the basis of the benchmark values for the period 2021 to 2025 specified in the Annex to the Commission Implementing Regulation (EU) 2021/447<sup>21</sup> or corresponding EU legislation. For reference systems based on product benchmarks with the collection of electricity consumption data, indirect emissions shall be deducted from the benchmark value in accordance with the electricity consumption indicated in the funding call. Detailed rules for the calculation of indirect emissions can be found in the funding call. If the greenhouse gas emissions of the reference system result from a combination of several benchmarks or if the application of the fallback benchmark for heat production and fuel usage is necessary, the granting authority makes the corresponding determinations. The specific energy carrier use of the reference system are determined by the granting authority in coherence with the specific greenhouse gas emissions. In the case of upstream reference systems that are specified in the funding call, the product emissions are communicated separately to the applicants when the funding call is published (see Appendix 1 number 4 paragraph 3). The product emissions are to be added to the greenhouse gas emissions of the upstream reference system in accordance with the specifications of Appendix 1 number 4. The resulting total replaces the greenhouse gas emissions of the reference system of the project to be funded in the calculation.
- (e) The greenhouse gas emissions of the project result from the greenhouse gas emissions of the subsidised plants (Scope 1 emissions), which are recorded in accordance with Annex I of Directive 2003/87/EC<sup>22</sup> in the current version in force for the industrial activities specified therein, and are calculated on the basis of the version of Commission Implementing Regulation (EU) 2018/2066<sup>23</sup> or corresponding EU legislation applicable at the time of the calculation. If plants are not mandatorily included in the EU ETS 1, sentence 1 applies accordingly. If a corresponding application in accordance with sentence 2 is not possible, the granting authority will issue the necessary specifications.

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<sup>21</sup> Commission Implementing Regulation (EU) 2021/447 of 12 March 2021 establishing adjusted benchmarks for the free assignment of emission allowances for the period 2021-2025 pursuant to Article 10a(2) of Directive 2003/87/EC of the European Parliament and of the Council (OJ L 87, 15.3.2021, p. 29).

<sup>22</sup> Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32), as last amended by Regulation (EU) 2024/795 of the European Parliament and of the Council of 29 February 2024 on the establishment of the Strategic Technologies for Europe Platform (STEP) and on amending Directive 2003/87/EC and Regulations (EU) 2021/1058, (EU) 2021/1056, (EU) 2021/1057, (EU) Number 1303/2013, (EU) Number 223/2014, (EU) 2021/1060, (EU) 2021/523, (EU) 2021/695, (EU) 2021/697 und (EU) 2021/241 (OJ L, 2024/795, 29.2.2024).

<sup>23</sup> Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012 (OJ L 334, 31.12.2018, p. 1), as last amended by the Commission Implementing Regulation (EU) 2024/2493 of 23 September 2024 for amending the Implementing Regulation (EU) 2018/2066 with regard to the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council (OJ L, 27.09.2024, p. 1).

Number (7.1(f) and Number 7.1(g) shall remain unaffected. When calculating greenhouse gas emissions in accordance with sentence 1, number 7.1(a)(iv) sentence 2 shall be taken into account accordingly.

- (f) Greenhouse gas emissions reductions achieved through the use of technologies to achieve negative emissions (negative emission technologies) are not taken into account, when calculating the planned and actually realised greenhouse gas emissions reductions of the project.
- (g) Greenhouse gas emissions from the use of synthetic methane are not given a zero emissions factor, but are taken into account in the determination of the greenhouse gas emissions of the project in accordance with the respective carbon content.
- (h) The modalities of grants and surplus payments are governed by Number 9 as well as the more detailed provisions of the grant notification and the Carbon Contract for Difference.

## **7.2 Dynamisation of energy carrier costs**

- (a) The dynamisation of one or more energy carriers serves to reduce the price risk. This means that the applicant is better protected and can calculate with a lower risk premium; this also makes the funding more favourable for the state.
- (b) When determining the reference system, the granting authority should specify one or more energy carriers in the reference system that are to be fully or proportionately dynamised. To this end, it shall state the specific use for the respective energy carriers of all eligible reference systems in the funding call. If one or more energy carriers of the respective reference system are dynamised and not all energy carriers used in the project are dynamised in accordance with Number 7.2(b) are dynamised, the energy carrier use dynamised in the reference system is reduced by the quantities of those energy carriers used in the project that are not dynamised in accordance with Number 7.2(b) are dynamised. The reduction is carried out in accordance with Appendix 1 Number 2 paragraph 8.
- (c) Taking into account the effect of an environmentally friendly operating decision, the granting authority will also stipulate in the funding call that one or more energy carriers used in the project for the manufacture of products and intermediate products or in the context of technologies for the capture of CO<sub>2</sub> and transmission to a CO<sub>2</sub> transport infrastructure for the purpose of long-term storage will be fully or proportionately dynamised, provided that long-term supply or hedging contracts with fixed prices for these energy carriers are not offered or are only offered with considerable risk premiums to the extent necessary. If and insofar as it is determined that a dynamisation is to take place for secondary energy carriers, recycled carbon fuels, hydrogen, hydrogen derivatives used for energy purpose or biomass, with the exception of biological hydrogen derivatives, the base prices and price indices determined by the granting authority will always be used for these energy carriers, even if the energy carriers mentioned are produced by the aid beneficiary. In this case, there is no dynamisation for the quantity of energy carriers required to produce the energy carriers specified in sentence 2.
- (d) The dynamisation takes into account the real development of prices for the energy carriers used as well as the greenhouse gas emission reduction of the project ("dynamisation component"). The granting authority can specify the maximum amount of energetic use

that can be taken into account per sector or, if required, per reference system or per technology in the funding call. The applicant may not exceed this amount in the application. The granting authority shall specify price indices and the base prices per dynamised energy carrier in the funding call. If no suitable price index is available for one or more energy carriers that specifically reflects the price movements of the respective energy carrier, the granting authority may specify one or more suitable substitute indices. If a preparatory procedure has been carried out prior to the bidding procedure, the granting authority may refrain from naming the base prices in the funding call and notify the base price separately to the companies that are authorised to participate in the bidding procedure following the outcome of the preparatory procedure. The granting authority may change the published price index with regard to the respective Carbon Contract for Difference for objective reasons. This is possible in particular if the price index concerned is discontinued or the price index is no longer suitable for reflecting the market value of the indexed energy carrier. The latter may be the case in particular if there are significant methodological changes in the calculation of the price index. The beneficiaries concerned must be informed immediately of any changes.

- (e) If and insofar as dynamisation is provided for green hydrogen, the price level resulting from the applicable price index shall be increased by 5 %.
- (f) If separate dynamisation is provided for green and low-carbon hydrogen, the price level resulting from the price index for green hydrogen is to be applied for low-carbon hydrogen from 2035 if the price level for green hydrogen is below the price level resulting from the price index for low-carbon hydrogen.
- (g) Further details are set out in Appendix 1.

### **7.3 Deviation from stated energy carrier use**

- (a) If an aid beneficiary deviates by more than five percentage points in one or more calendar years from the relative use of one or more energy carriers specified in its application pursuant to Number 8.2(d) or according to number 7.9 in one or more energy carriers, it must apply for the prior approval of the granting authority. The application must fulfil the requirements specified in Number 8.2(d) to the extent that the planned change in the relative energy carrier use results in deviations from the application pursuant to Number 8.2(d) or the adjustments pursuant to Number 7.9. arise. Number 8.2 (d) sentences 8-10 apply accordingly to the information in sentence 2. Deviations from the data specified in the application pursuant to number 8.2(d) or according to number 7.9 of one or more energy carriers by up to five percentage points are permitted without the approval of the granting authority, subject to the other requirements and specifications of this funding guideline and the Carbon Contract for Difference. By way of derogation from sentence 1, switching between green and low-carbon hydrogen does not require the approval of the granting authority.
- (b) The granting authority can approve the application under Number 7.3(a) sentence 1 if
  - (i) the requested derogation
    - (A) is due to force majeure, or
    - (B) results in additional greenhouse gas emission reductions within the subsidised project, or

- (C) is based on significant technological improvements to the subsidised project, or
- (D) is based on unforeseen price developments, or
- (E) reacts to a shortage in the availability of certain energy carriers, or
- (F) responds to a delay in the provision of electricity or hydrogen infrastructure for which the aid beneficiary is not responsible.

and

- (ii) the requested exemption is consistent with energy and climate policy objectives  
and
- (iii) the project continues to fulfil the further requirements of this funding guideline; in particular
  - (A) the reason for exclusion under number 4.17(j) must not be realised; and
  - (B) the project must continue to meet the requirements for a transformative production process (number 2.32); and
  - (C) the project must comply with the minimum requirements under Number 4.16(b). This does not apply if the aid beneficiary can show that the minimum requirements under Number 4.16(b) cannot be met for reasons beyond its control, in particular due to force majeure or delayed provision of infrastructure.

In the cases referred to in sentence 1 (i)(A) and (i)(B), the granting authority shall consent to the application in accordance with number 7.3(a), sentence 1 in principle.

- (c) The requirements for the use of certain energy carriers according to numbers 4.9 to 4.14 remain unaffected.
- (d) The amount of energy required in the application pursuant to Number 8.2(d) or according to number 7.9 must not fall below the absolute greenhouse gas emission reduction pathway. The granting authority may deviate from this, provided that the requested deviation is not due to a fault of the aid beneficiary, in particular due to force majeure or delayed provision of infrastructure.
- (e) If the granting authority approves the requested deviation, the calculation of the grant or surplus payment is based on the information in the application in accordance with Number 7.3(a).
- (f) The maximum annual funding amount and the maximum total funding amount are determined by adjusting the energy carrier use within the project on the basis of this Number 7.3 will not change.
- (g) The application according to number 7.3(a) sentence 1 may only be submitted once per calendar year by an aid beneficiary.

#### **7.4 Maximum funding amount**

- (a) The grant notification specifies the respective maximum annual funding amount and the maximum total funding amount.



- (b) The maximum total funding amount corresponds to the sum of the maximum annual funding amounts.
- (c) The maximum annual amount of funding is calculated on the basis of the base contract price. A term is added to the base contract price that appropriately takes into account the potential additional budget requirement due to the dynamisation of the energy carriers of the reference system and the project as well as any fluctuations in the effective CO<sub>2</sub> price.
- (d) Further details are set out in Appendix 1.
- (e) The funding call may stipulate that the maximum total funding amount under Number (a)a(b) per project is limited to a certain amount specified in the funding call. The granting authority may determine that a certain type of project may benefit from an amount in excess of sentence 1.

### **7.5 Prohibition of cumulation, offsetting and state aid ceilings**

- (a) If the aid beneficiary receives other funding for the project that is not equivalent to funding under this funding guideline in accordance with Number 4.17(m) the granting authority shall, as part of the annual calculation of the grant and the surplus payment pursuant to Number 7.1 ensure that there is no overcompensation. Otherwise, number 7.1(a).
- (b) The granting authority shall publish a list of those grants that are deemed to be other grants within the meaning of these funding guidelines together with the funding call. The list is not exhaustive and does not release the applicants from the obligation to carry out an independent review with regard to the receipt of other funding, whereby the applicants may request confirmation of their respective review results from the granting authority.
- (c) From the number 7.1 and number 9.2 any other funding approved after submission of the application shall be deducted. Insofar as other funding already approved at the time the application is submitted is increased after this time, sentence 1 shall apply accordingly to the amount by which the funding has increased compared to the time the application was submitted. The deduction must be made in the calendar year following the calendar year in which the other funding was paid out or otherwise granted. If a deduction is not possible or not possible in full because the grant awarded on the basis of the other funding exceeds the amount of the grant calculated for the respective calendar year or an excess payment is to be made by the aid beneficiary, the granting authority must reclaim grants already paid on the basis of the Carbon Contract for Difference in the amount of the non-deductible other funding, limited to the amount of all grants previously paid to the aid beneficiary on the basis of the Carbon Contract for Difference. Otherwise, any amounts not deducted or reclaimed must be deducted in subsequent calendar years.
- (d) Insofar as hydrogen is used in a project that is produced by electrolysis plants of an affiliated company of the aid beneficiary within the meaning of Numbers 15 et seq. AktG, the funding paid out or otherwise granted in respect of these electrolysis plants by an affiliated company of the aid beneficiary within the meaning of Numbers 15 et seq. AktG is deducted in accordance with Number 7.1(a)(vi) and number 7.5(b) , if the subsidies qualify as funding within the meaning of Article 107(1) TFEU or as centrally managed Union funds that are not directly or indirectly subject to German control. The amount of the

deduction is determined with Appendix 1 section 1 paragraph 7. The Carbon Contract for Difference may contain more detailed specifications regarding the required evidence.

#### **7.6 EU state aid law**

If the European Commission has set a maximum limit for the funding of a project and the aid beneficiary of the grant is legally entitled to this funding, the total funding of this project, including the funding based on these funding guidelines, may not exceed this maximum limit.

#### **7.7 Suspension of payment obligations**

At the request of the aid beneficiary, the granting authority shall terminate the mutual payment obligations in connection with the grant or surplus payment for the remaining term of the Carbon Contracts for Difference with effect from the end of three years, calculated from the end of the calendar year in which the application was submitted by the aid beneficiary, if the aid beneficiary has made a surplus payment to the grantor under the Carbon Contract for Difference in a calendar year. The aid beneficiary may only submit the application in the calendar year following the surplus payment.

#### **7.8 Reduction of production in conventional reference plants**

If the aid beneficiary or an affiliated company within the meaning of Numbers 15 et seq. AktG, operates one or more plants in Germany at the time of application that are subject to the same reference system or – in the case of projects that relate to several reference systems – the same reference systems as one or more subsidised plants ("**conventional reference plant**"), the aid beneficiary must reduce production in the conventional reference plants by a total of at least 90 % of the production capacity of the subsidised plants during the term of the Carbon Contract for Difference. If an existing conventional production plant is converted to a transformative production process as part of the project, the plants covered by the conversion are also considered conventional reference plants. The reduction in conventional production capacities associated with the conversion shall be counted towards the reduction in production capacity required under sentence 1. More detailed regulations are set out in the Carbon Contract for Difference.

#### **7.9 Postponement of the operational start**

- (a) If the actual operational start of works differs from the planned operational start of works, the costs specified in Number 8.2(d) at the request of the aid beneficiary in accordance with the postponement of the operational start by the Granting authority pursuant to Number 7.9(c) adjusted. The application must be submitted after the operational start date and at the latest by the end of 31 December of the calendar year in which the operational start date of the project falls. The granting authority should decide on the application in accordance with sentence 1 within two months of receipt.
- (b) If the operational start is postponed by one or more complete calendar years, the application must contain a corresponding postponement of the information provided when the application was submitted in accordance with Number 8.2(d) must be made in the application. If the postponement of the operational start by one or more complete calendar years does not take place, the application in accordance with number 7.9(a) sentence 1, the changes in the absolute planned values for greenhouse gas emission reductions, the production volume and the energy carrier use for each energy carrier in the project must be presented in a sufficiently precise time frame (e.g. to the nearest

month). In addition, the planned relative use of energy carriers should be specified in the application. The values stated in accordance with sentence 2 and sentence 3 must not contradict the information in the application in accordance with number 8.2(d). Number 8.2(d) sentence 8-10 shall apply mutatis mutandis to the information pursuant to sentence 2 and sentence 3.

- (c) The granting authority shall approve the application in accordance with Number 7.9(a) sentence 1 if the requirements of Number 7.9(b) sentence 4 are met. In this case, it will amend the planned values on the basis of the application in relation to the complete calendar years and, in the case of an operational start during the year, also in relation to the partial years within the term of the Carbon Contract for Difference. For this purpose, the granting authority adjusts the values specified in Number 7.9(b) sentence 2 and determines the plan values derived from them, in accordance with the specifications in Appendix 1 Number 5.
- (d) If the application is not made within the period provided for in Number 7.9(a) sentence 2 or if the condition set out in Number 7.9(b) sentence 3 is not met, the authority shall, at its discretion, adjust the values specified in the second sentence of Number 7.9(b) in accordance with the deviation of the actual operational start of works from the planned operational start of works and determine the planned values derived therefrom, in accordance with the specifications in Appendix 1 Number 5. The values determined in accordance with sentence 1 must not contradict the information in the application in accordance with Number 8.2(d) are contradictory.
- (e) In the cases of number 7.9(c) and number 7.9(d) no adjustments are made to the subsidised project defined in the Carbon Contract for Difference.
- (f) The maximum annual funding amounts shall be determined in the case of Number 7.9(a) sentence 1 or in the case of number 7.9(d) shall be adjusted in accordance with Appendix 1 Number 3. The maximum annual funding amounts specified in the notice of grant pursuant to Number (a)a(b) shall not be increased as a result.
- (g) Number 4.2 remains unaffected.
- (h) If an aid beneficiary wishes to deviate by more than five percentage points in one or more calendar years from the relative use of one or more energy carriers adjusted in accordance with this number, number 7.3 shall apply.
- (i) If the operational start of works in accordance with this Number 7.9 is postponed, the minimum requirement according to Number 4.16(b)(i) must be fulfilled at the latest from the fourth full calendar year within the term of the Carbon Contract for Difference;

## **8. BIDDING PROCEDURE**

### **8.1 Procedure**

- (a) The granting authority organizes bidding procedures in which applicants submit their applications for one or more projects. The bidding procedures are initiated by funding calls. In the funding call, the granting authority may set the start of the material cut-off period differently from the date of the initiation of the bidding procedure.

- (b) In order to increase the effective achievement of the funding objectives, the granting authority may, in consultation with the European Commission, restrict bidding procedures in the funding call to certain products in accordance with Annex I of Directive 2003/87/EC<sup>24</sup>, certain sectors defined in the funding call or technologies or specify in the funding call that the funding volume is to benefit at least one or more projects from one or more sectors or technologies ("restricted bidding procedure") if
  - (i) a cross-sector or cross-technology bidding procedure would not achieve one of the following objectives, which can be specified in funding calls, with the same effectiveness:
    - (A) a sector- or technology-specific objective enshrined in Union law,
    - (B) the special funding of demonstration projects,
    - (C) the targeted funding of sectors or innovative technologies that have the potential to make an important and cost-effective contribution to climate protection and comprehensive decarbonisation in the long term, or
  - (ii) it can be assumed that a more selective approach leads to lower climate protection costs, or
  - (iii) the amount of bids that different groups of companies are likely to submit differs significantly (more than 10 %); in this case, groups of companies with comparable costs must compete with each other.
- (c) A bidding procedure, including a restricted bidding procedure, may only take place if it is to be expected that not all applicants will be awarded a full contract in this procedure, so that there is no risk of competition being impaired.
- (d) A restricted bidding procedure is only permissible if sufficient competition and the greatest possible technological openness are ensured.
- (e) In particular, the funding call sets out the implementation of a bidding procedure, a possible limitation of the bidding procedure, the funding conditions, the funding volume, the assessment scheme for assessing the bids (see Number 8.3), the deadline for submitting bids, the forms and documents to be used when submitting applications and the procedural rules for the bidding procedure.
- (f) In the funding call, the granting authority sets a maximum price for all bids, for bids from applicants in a specific sector, for bids from applicants using a specific technology or for bids from applicants whose project can be assigned to a specific reference system. The maximum prices should be set in such a way that, based on current price expectations, surplus payments can be expected over the course of the funding period and the projects can probably continue to be operated without state funding after the end of the term of

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<sup>24</sup> Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32), as last amended by Regulation (EU) 2024/795 of the European Parliament and of the Council of 29 February 2024 on the establishment of the Strategic Technologies for Europe Platform (STEP) and on amending Directive 2003/87/EC and Regulations (EU) 2021/1058, (EU) 2021/1056, (EU) 2021/1057, (EU) Number 1303/2013, (EU) Number 223/2014, (EU) 2021/1060, (EU) 2021/523, (EU) 2021/695, (EU) 2021/697 und (EU) 2021/241 (OJ L, 2024/795, 29.2.2024).

the Carbon Contract for Difference. Deviating maximum prices require the approval of the European Commission or the joint approval of the Federal Chancellery and the BMF. Bids with specific funding costs (number 8.3(e) Appendix 2 Paragraph 1) above the maximum price specified in the funding call will be excluded from the bidding procedure.

- (g) The granting authority publishes the funding call in the Federal Gazette.
- (h) The applicant may submit the application documents prepared by him/her and the model of the Carbon Contract for Difference completed to the granting authority for a non-binding review within a period specified in the funding call before the expiry of the deadline for submitting the bids. The granting authority will inform the applicant of its assessment up to one week before the expiry of the deadline for submitting the bids. More detailed provisions on this are set out in the funding call.

## **8.2 Applications**

- (a) Applications must be submitted using the forms provided by the granting authority and completed in full in accordance with the requirements set out in the funding call.
- (b) Applications subject to a condition, for example auxiliary applications, are not admissible and will be rejected.
- (c) Applications must include all information and documents required for the review, the decision on the eligibility requirements and the assessment of the bids.
- (d) For each calendar year and, in the case of a planned operational start during the year, additionally for the partial years within the period specified in Number 4.2(a) and Number 4.2(b) for each calendar year calculated from the operational start of works planned by the applicant, the applicant must state the following in the application:
  - (i) the planned absolute reduction in greenhouse gas emissions and the planned production volume for each reference system;
  - (ii) the planned absolute use of each energy carrier in the project;
  - (iii) an upstream reference system is applied to the project, as well as the planned input quantity of the upstream product of the project.

In the case of a planned operational start of works during the year, sufficiently specific information must be provided for the last full calendar year and for the last partial year; the granting authority shall provide more detailed specifications on this in the application documents. The planned specific greenhouse gas emissions, the specific greenhouse gas emission reduction and the planned specific energy carrier inputs shall be calculated by the granting authority on the basis of the information pursuant to sentence 1 in accordance with Appendix 1, section 5. In addition, the planned relative use of energy carriers shall be specified in the application. The quantities of secondary energy carriers, recycled carbon fuels, hydrogen, biomass or non-biological hydrogen derivatives used must be stated in the application, regardless of whether they are produced by the aid beneficiary himself or purchased externally. Energy carriers used by the aid beneficiary for the production of secondary energy carriers, recycled carbon fuels, hydrogen, hydrogen derivatives used for energetic purposes and biomass, with the exception of biological hydrogen derivatives, are not to be included in the application. If hydrogen derivatives are used in the project that are not utilised for energetic purposes and are intermediate products in accordance with Number

2.42, the quantities of energy carriers required to produce the hydrogen derivatives must also be stated separately in the application. The information on the planned use of energy carriers must relate to the physical use of the specified quantities of the respective energy carriers in the project. The specification of energy carriers used in the balance sheet is not possible for hydrogen. Number 7.1(a)(iv) sentence 3 applies accordingly.

- (e) In particular, the following information and documents must be provided:
- (i) a project description that includes at least the following:
- (A) a technical description of the project with details
    - (1) on the technical feasibility and technological pathway for decarbonising the process, including a conceptual and quantitative description of how greenhouse gas emissions are saved and the minimum requirements under Number 4.16(b) are achieved,
    - (2) to achieve the minimum size according to number 4.16(a),
    - (3) at the planned time of the operational start,
    - (4) the extent to which it is a transformative production process in accordance with Number 2.32 is involved,
    - (5) to illustrate the system boundaries and system delimitation in compliance with the provisions laid down in this funding guideline and in the funding call,
  - (B) information on the locations of the production plants covered by the project and whether each individual production plant is such that its reference system would be covered by the EU ETS 1 in terms of its production capacity or rated thermal input in accordance with Annex I to Directive 2003/87/EC<sup>25</sup>,
  - (C) presentation of the economic and operational feasibility and the expertise required to implement the project to be funded,
  - (D) a milestone plan for the period between the grant notification becoming effective and the planned operational start of works, showing which milestones will be reached each year,
  - (E) information on the transferability of the technological concept of the plants to be funded to other plants of the applicant and other legal entities,
- (ii) a quantitative presentation of the remaining emissions, including specific energy carrier use and greenhouse gas emissions under different operating modes of the plant to be promoted,

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<sup>25</sup> Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32), as last amended by Regulation (EU) 2024/795 of the European Parliament and of the Council of 29 February 2024 on the establishment of the Strategic Technologies for Europe Platform (STEP) and on amending Directive 2003/87/EC and Regulations (EU) 2021/1058, (EU) 2021/1056, (EU) 2021/1057, (EU) Number 1303/2013, (EU) Number 223/2014, (EU) 2021/1060, (EU) 2021/523, (EU) 2021/695, (EU) 2021/697 und (EU) 2021/241 (OJ L, 2024/795, 29.2.2024).

- (iii) proof of sufficient creditworthiness,
- (iv) a financing plan with details of own and external funds,
- (v) proof of a security (number 2.27) in the amount of 0.1 % of the maximum total funding amount calculated by the applicant (financial prequalification). The security shall cover any claims of the granting authority body in connection with the contractual penalty pursuant to Number 12.2(a)(i) secured. The granting authority shall return the security without delay,
  - (A) if the applicant has not been awarded a contract for its bid or if the commitment period specified in the funding call for the project referred to in Number 8.2(e)(xiv) has expired; or
  - (B) if the operational start of the applicant's subsidized project takes place within 36 months of the grant notification becoming final. If in the funding call pursuant to Number 4.2(a) a different deadline has been specified or the deadline has been extended in accordance to Number **Fehler! Verweisquelle konnte nicht gefunden werden.** or **Fehler! Verweisquelle konnte nicht gefunden werden.**, , this deadline shall apply instead of the 36 months; or
  - (C) if the Applicant pays a contractual penalty in accordance with Number 12.2(a)(i) on the basis of a corresponding contractual penalty provision in the Carbon Contract for Difference,
- (vi) information on other funding already approved or applied for the project,
- (vii) a declaration confirming that the project has not yet commenced at the time the application is submitted (start of the works pursuant to Number 2.38),
- (viii) details of other parties obliged to provide information and to cooperate within the meaning of Number 10.2(f),
- (ix) the declarations on data processing,
- (x) the declaration of facts relevant to the funding,
- (xi) the declaration of non-existence of reasons according to number 5.4,
- (xii) a declaration that the applicant is aware of the requirements of antitrust law and that these requirements have not been or will not be violated either in the course of the bidding procedure in question or in general with regard to bidding procedures under these funding guidelines; the granting authority may stipulate further requirements in this regard in the funding call,
- (xiii) a declaration confirming that all necessary foreign trade and merger control authorizations for the activities of the applicant or, in the case of a consortium, the consortium members have been obtained,
- (xiv) a declaration that the applicant is satisfied with the content and completion of the programme referred to in Number 8.5(c) completed and, where applicable, agreed, and submits an offer to conclude the Carbon Contract for Difference with this content. The binding period for this offer is six months, unless otherwise stipulated in the funding call,

- (xv) a declaration confirming that the project does not comply with Number 4.17(o) must be implemented in whole or in part due to legal requirements,
- (xvi) a declaration confirming that the project will not have a significant negative impact on the environmental objectives pursuant to Article 17 of Regulation (EU) 2020/85226 ,
- (xvii) a declaration confirming that the project complies with the applicable Union standards,
- (xviii) a declaration of commitment from the owner of the subsidized plants or conventional reference plants, if the applicant is not the owner of these plants. The granting authority may, at the applicant's request, dispense with the requirement to submit a declaration of commitment in accordance with sentence 1, provided that the security needs of the grantor can be otherwise ensured. In the case of sentence 2, the applicant shall, when submitting the application, provide a comprehensible explanation of why the submission of a declaration of commitment should be waived and, by enclosing the relevant declarations or agreements, demonstrate how the funding provider's security needs will be otherwise ensured, and
- (xix) a viable concept for maintaining the location and for developing employment in relation to the transformative production process, provided that there is no works council in the aid beneficiary's company and the aid beneficiary is not bound by a collective agreement. If the aid beneficiary's company has a works council or the aid beneficiary is bound by a collective agreement, a declaration must be made instead of sentence 1 that a written agreement between the aid beneficiary with the responsible works council or the responsible collective bargaining parties, stating that the aid beneficiary is pursuing a viable concept for maintaining the location and developing employment in relation to the transformative production process.

The granting authority may, at its discretion, request further documents and evidence as well as the examination and confirmation of documents, for example by an auditor appointed by it. The costs are to be borne by the applicant.

- (f) The project to be funded must be defined in the application by the applicant or, in the case of a consortium, by the consortium leader. If the project defined in accordance with sentence 1 consists of several products, the respective products must be named individually in the application. The project realised by the applicant or, in the case of a consortium, by the consortium, may not exceed a maximum of 0 submitted with the application under Number 8.2(e)(i), the project realised by the applicant may not deviate from the project defined in sentence 1 without the approval of the granting authority. In particular, the transformative production process chosen by the applicant at the time of the application, or by the consortium leader in the case of a consortium, may not change during the course of the realization of the project defined in sentence 1. Deviations

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<sup>26</sup> Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 (OJ L 198, 22.06.2020, p. 13), as last amended by Corrigendum to Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088. 13), as last amended by Corrigendum to Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 (Official Journal of the European Union L 198, 22 June 2020) (OJ L 142, 01.06.2023, p. 45).



authorised in this funding guideline or in the model Carbon Contract for Difference remain unaffected.

- (g) An applicant may be excluded from participation in the bidding procedure by the granting authority if the information provided by the applicant in the application for participation in the bidding procedure is false or deviates significantly from the information provided by the applicant in the preparatory procedure in accordance with Number 8.6 has made. This is particularly the case if the deviations are not attributable to the funding call or to changes to the Carbon Contract for Difference s funding programme, in particular changes to these Funding Guidelines and the model Carbon Contract for Difference after the announcement of the implementation of the preparatory procedure in the Federal Gazette.
- (h) The situation at the time of the official decision is decisive for the assessment and examination of applications submitted in a bidding procedure by the granting authority. With regard to the legal and administrative provisions referred to in this funding guideline, the date of the deadline for submitting the bids (number 8.3(c)) shall apply, unless an earlier date is to be used as a basis in accordance with number 3.5.

### **8.3 Examination and assessment of bids**

- (a) The granting authority will review the applications in accordance with the provisions set out in these funding guidelines and in the respective funding call. The eligible bids are awarded in the order in which they are evaluated within the scope of the funding volume applicable to the respective funding call. The maximum entire funding amount for the respective projects is used as the basis for determining the share of the funding volume required for the projects. In the event of a tie, the decision will be made by drawing lots, unless all applications with the same number of points can be awarded a grant. The granting authority may specify further cases in the funding call in which the funding volume applicable to the respective funding call may be exceeded and define the necessary regulations.
- (b) Applications that are wholly or partially aimed at funding the same project are not admissible within one funding call. If several applications are aimed in whole or in part at funding the same project, only the last application submitted will be considered and evaluated. All other applications submitted earlier will be rejected. If applications are received at the same time, the decision will be made by drawing lots.
- (c) Applications that are not submitted in the form specified by the granting authority by the deadline specified in the funding call (deadline for submitting the bids) or that do not contain the information and documents requested or - in the case of an additional request - subsequently requested, will be rejected.
- (d) Bids are exclusively assessed on the basis of the criterion of funding cost efficiency.
- (e) The criterion of funding cost efficiency is based on the calculation of specific funding costs. The specific funding costs are the sum of the base contract price and the cost efficiency of other funding, provided that the other funding has already been approved at the time of application.
- (i) To determine the cost-effectiveness of other funding, the discounted sum is divided by the discounted planned absolute greenhouse gas emission reduction during the term of

the Carbon Contract for Difference determined in accordance with the provisions of this funding guideline. The interest rate required for the calculation pursuant to sentence 1 shall be specified by the granting authority in the funding call.

- (ii) To assess the funding cost efficiency, this is standardised using the maximum prices (see Number 8.1(f) defined by the granting authority. Appendix 2 defines the calculation methodology.
- (iii) Other funding that may not be combined with funding under the Carbon Contracts for Differences funding program in accordance with the regulations of the respective funding program is not taken into account when calculating the specific funding costs if and to the extent that
  - (A) the aid beneficiary declares in the application for funding that there is a prohibition on cumulation and that it will repay or waive the other funding, including the corresponding interest on repayment, if a climate protection agreement is concluded, and
  - (B) there is agreement between the granting authority and the competent body administering the other funding on the revocation and, if the other funding has already been paid out or otherwise granted, the recovery of the other funding, including the corresponding recovery interest, in the event of the conclusion of a Carbon Contract for Difference.
- (f) The bidding procedure is static and pay-as-bid, so that successful applicants receive the grant on the basis of the base contract price they have applied for.
- (g) The granting authority works together with the German Emissions Trading Authority (DEHSt) to review applications.
- (h) The funding call may stipulate that only a certain percentage of the funding volume specified in the respective funding call can be allocated to projects that are assigned to the same sector or the same technology. The sectors and technologies as well as the assignment of a project to a sector or a technology are specified in the funding call. If the maximum total funding amount of a project – taking into account the respective maximum total funding amount of the projects that are assigned to this project in the order specified in Number 8.3(a) sentence 2 in the same sector or within a technology – exceeds the threshold value specified in the funding call in accordance with sentence 1, this project from the respective sector or the respective technology shall be included in the evaluation in accordance with Number 8.3(a) shall not be taken into account. If several reference systems apply to a project that are to be allocated to different sectors in accordance with the provisions of the funding call, the project as a whole shall be allocated to the sector that has the highest averaging factor in accordance with Appendix 3, Number 1, paragraph 2. In the funding call, the granting authority may specify cases in which the regulations under this Number may be deviated from, and make the necessary arrangements to that end.
- (i) If the granting authority intends to reject an application because no transformative production process is involved, it will commission a report from an expert assessor before making a final decision on the project's eligibility for funding. The expert opinion must be submitted within two weeks. The expert assessor must have proven professional

expertise in issues relating to the decarbonisation of industry and must not have a conflict of interest with one or more potential or actual applicants or aid beneficiaries or companies affiliated with them within the meaning of Numbers 15 et seq. AktG (German Stock Corporation Act). The granting authority may impose the costs on the applicant.

- (j) If the offered base contract price is abnormally low in relation to the normal market costs for avoiding one tonne of CO<sub>2</sub>, taking into account in particular the technology used and the planned use of energy carriers, the granting authority may at its discretion request the applicant to provide all necessary information required by the granting authority to verify whether the application or the applicant's offer, in particular the base contract price offered, has been influenced by one or more measures that distort or threaten to distort competition.

If, upon completion of the examination, the granting authority concludes that the influence in an individual case is to be classified as significant, the granting authority may exclude the applicant from the current bidding procedure. The same applies if, due to a lack of cooperation on the part of the applicant, it is not possible or not possible in good time to determine whether a measure exists which distorts or threatens to distort competition.

#### **8.4 Grant notification**

The granting authority awards the grant to successful applicants by means of a grant notification, which is issued simultaneously with the award of the contract in favour of the successful bid in the bidding procedure.

#### **8.5 Carbon Contract for Difference**

- (a) The Carbon Contract for Difference is concluded when the granting authority awards the contract in favour of the applicant's bid in accordance with Number 8.2(e)(xiv) and thus accepts the offer. The Carbon Contract for Difference serves to further define the grant relationship based on the grant notification. The Carbon Contract for Difference also contains provisions on the aid beneficiary's surplus payments.
- (b) The funding authority will publish a model Carbon Contract for Difference in accordance with the requirements of this funding guideline. For reasons of equality of competition, the model Carbon Contract for Difference will only be adapted if this is absolutely necessary due to the special features of the aid beneficiary.
- (c) The Carbon Contract for Difference also contains provisions for the event that the subsidized plants are to be transferred to a third party. In this case, it must be ensured in particular that surplus payments continue to be made to the funding provider and that the purchaser fulfils the requirements and obligations of the aid beneficiary under this funding guideline, the funding call and the Carbon Contract for Difference.

#### **8.6 Preparatory procedure**

- (a) The granting authority may carry out a preparatory procedure prior to the bidding procedure in order to obtain information for the bidding procedure and to give applicants the opportunity to ask questions about the bidding procedure. It shall publicise the implementation of a preparatory procedure, including the procedural regulations, in the Federal Gazette.

- (b) Applicants who have not participated in the preparatory procedure or have not submitted the requested information in full or on time are excluded from participation in the subsequent bidding procedure (deadline for submitting the bids). Notwithstanding this,
  - (i) the granting authority may, in justified cases, allow an applicant who has not participated in the preparatory procedure to participate in the subsequent bidding procedure if
    - (A) another company has participated in the preparatory procedure with the project to be funded in the application for funding; and
    - (B) circumstances arise after the end of the preparatory procedure that result in the other company that participated in the preparatory procedure no longer being eligible to apply in accordance with Number 5.4(b); and
    - (C) the applicant continues the other company's project for which the application for funding was submitted and is otherwise eligible to apply under this funding guideline and the respective funding call; in particular, Number 8.2(g) remains unaffected;
  - (ii) the granting authority may, in justified cases, allow the inclusion of new eligible applicants in a consortium or the formation of a new consortium between an applicant whose project has been approved for participation in the bidding procedure following participation in the preparatory procedure and new eligible applicants. The inclusion of new consortium members or the formation of a new consortium is justified in particular if it is due to the funding calls or changes to the Carbon Contracts for Differences funding program, in particular changes to this funding guideline and the model Carbon Contract for Difference after the announcement of the implementation of the preparatory procedure in the Federal Gazette.
- (c) If a preparatory procedure has been carried out, the granting authority may refrain from publishing the funding call in the Federal Gazette in accordance with Number 8.1(g) and instead publish the funding call only on the funding programme website.

### **8.7 Information events and public consultation processes**

- (a) In addition to the information provided, the granting authority may hold information events to clarify technical issues relating to the Carbon Contracts for Difference funding programme. Before establishing methodological regulations for the Carbon Contracts for Difference funding programme, the granting authority may conduct public consultation procedures.

### **8.8 Exclusion**

- (a) An applicant may be excluded from an ongoing bidding procedure and future bidding procedures if it or a company affiliated with it within the meaning of Numbers 15 et seq. AktG, has entered into contracts with other applicants in connection with the application for grants under this funding guideline or has coordinated behavior that has the object or effect of preventing, restricting or distorting competition in accordance with a legally binding decision by the antitrust authorities pursuant to Number 1 of the Act against Restraints of Competition (GWB) or Article 101 TFEU. If the antitrust authority's decision is to be entered in the Competition Register pursuant to Number 2 (2) sentence 1 of the

Competition Register Act, the exclusion from current and future bidding procedures can be provided for as long as the entry in the Competition Register exists. If the competition authority's decision does not have to be entered in the Competition Register, the exclusion from current and future bidding procedures can be provided for a maximum of six months from the date on which the competition authority's decision becomes final.

- (b) The granting authority may also exclude applicants from participation in an ongoing bidding procedure if it has sufficient evidence that the company has entered into agreements with other companies in connection with the application for grants under this funding guideline or has coordinated behaviour that has as its object or effect the prevention, restriction or distortion of competition in accordance with § 1 GWB or Article 101 TFEU.

## **9. CALCULATION METHOD, PAYMENT AND SURPLUS PAYMENTS**

### **9.1 Monitoring concept**

At the operational start the aid beneficiary must submit

a monitoring concept for the determination and reporting of greenhouse gas emissions, energy consumption data and the key production parameters of the subsidized project. Further requirements are set out in the Carbon Contract for Difference.

### **9.2 Calculation method**

- (a) The grants to the aid beneficiary or the surplus payments to the grantor are made on a calendar year basis after a calculation procedure has been carried out. If the project commences operations during the year, the term of the Carbon Contract for Difference extends over 16 calendar years. In this case, the calculation is still based on calendar years.
- (b) The granting authority carries out the calculation procedure.
  - (i) For this purpose, the aid beneficiary must submit the calculated and verified greenhouse gas emissions of the funded project (realised greenhouse gas emissions), the free assignments of EU ETS 1 emission allowances for the funded project (realised free assignment), the energy consumption data (actual measured use for the energy carriers of the funded project) and the key production parameters (realised production volume and, where relevant, input quantities of input materials and preliminary products) in an emissions and energy efficiency report by 30 April of the following year ("calculation data"). Insofar as and to the extent that the use of balanced energy carriers occurs in the project, information must be provided on both the balanced energy carriers used and those physically used energy carriers. With regard to hydrogen, the energy consumption data may only capture the quantities physically used in the project. The indication of balanced energy carriers used is excluded to that extent. Number 7.1(a)(iv) sentence 3 applies accordingly.
  - (ii) If a project comprises the manufacture of several products that are to be allocated to different reference systems, the respective production quantities, the actual measured use for the energy carriers of the funded project and the free assignments realised for the reference systems covered must be reported separately.

- (iii) For projects in which greenhouse gas emission reductions are achieved through CCS or CCU, the calculation details must also include the following information:
- (A) If CO<sub>2</sub> capture is carried out by a specific plant to which CO<sub>2</sub> is transferred from one or more funded plants: the amount of CO<sub>2</sub> transferred from funded plants to a capture plant,
  - (B) the composition of the captured CO<sub>2</sub> (fossil, biological, mineral, atmospheric, other)
  - (C) for CCS: the amount of CO<sub>2</sub> transferred from the extraction project to a CO<sub>2</sub> transport infrastructure for long-term storage,
  - (D) for CCU: the use of the captured CO<sub>2</sub> and the amount of CO<sub>2</sub> permanently stored in a product.

Where possible, information shall also be provided on the amount of CO<sub>2</sub> stored permanently at a storage site and the location of the storage site.

- (c) The calculation figures relate to the previous calendar year; in partial years, they only relate to the period of the partial year within the term of the Carbon Contract for Difference. In the case of an operational start of works during the year, calculation data must be provided for a period of 16 calendar years; in this case, the report for the last partial year must include the calculated and verified greenhouse gas emissions and the key production parameters for the last 12 months within the term of the climate change mitigation agreement in addition to the information according to sentence 2.
- (d) In the emissions and energy efficiency report in accordance with 9.2(b) the data determined, verified and reported in implementation of the TEHG must be used as far as possible. The aid beneficiary must agree to the forwarding of this data by DEHSt to the granting authority in the Carbon Contract for Difference. Proof of the consent given to DEHSt to pass on the data must be submitted with the calculation details. Insofar as according to number 9.2(b) calculation information that goes beyond the data reported in the implementation of the TEHG must be submitted (e.g. additional data or data during the year) or the subsidized plant does not fall within the scope of the TEHG, the calculation and reporting must be carried out in accordance with the provisions of the TEHG, Commission Implementing Regulation (EU) 2018/2066<sup>27</sup> and Commission Delegated Regulation (EU) 2019/331<sup>28</sup> or corresponding provisions of Union law, in the version currently in force. If a corresponding application in accordance with sentence 4 is not possible, the granting authority shall issue the necessary requirements. In the cases of

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<sup>27</sup> Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012 (OJ L 334, 31.12.2018, p. 1), as last amended by Commission Implementing Regulation (EU) 2024/2493 of 23 September 2024 amending Implementing Regulation (EU) 2018/2066 as regards updating the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council (OJ L 27.09.2024, p. 1).

<sup>28</sup> Commission Delegated Regulation (EU) 2019/331 of 19 December 2018 laying down EU-wide transitional provisions for the harmonization of free assignment of emission allowances pursuant to Article 10a of Directive 2003/87/EC of the European Parliament and of the Council (OJ L 059, 27.2.2019, p. 8), as last amended by Commission Delegated Regulation (EU) 2024/873 of 30 January 2024 amending Delegated Regulation (EU) 2019/331 as regards EU-wide transitional provisions for the harmonisation of free assignment of emission allowances (OJ L 2024/873, 4.2024).

sentences 4 and 5, the information on greenhouse gas emissions, energy consumption and production parameters must have been verified in advance by an expert verification body appointed by the granting authority (e.g. verification body pursuant to Number 21 TEHG). If there are doubts about the quality of the reported data in the cases referred to in sentence 1 in individual cases, the granting authority may request the verification and confirmation of certain information by an expert inspection body appointed by it.

- (e) The granting authority must carry out the calculation procedure no later than three months after receipt of the complete calculation data and inform the aid beneficiary of the result of its calculations, in particular the amount of the annual grant or the surplus payment, taking into account any advance payments made. By way of exception, the granting authority may extend the period for carrying out the calculation procedure to a maximum of four months. The granting authority must justify the extension of the calculation procedure to the aid beneficiary in text form.
- (f) The granting authority is entitled to request further information.
- (g) Grants and surplus payments by the aid beneficiary are due within 30 days of notification of the result of the calculation. Payments shall be made subject to a possible change in the result of the calculation in accordance with Number 9.3.
- (h) Further details on the calculation procedure can be regulated in the model Carbon Contract for Difference.

### **9.3 Subsequent changes**

If data submitted in the calculation procedure is corrected by the DEHSt as part of the review, subsequent changes are made to the realised free assignments for the subsidized project or the price data of the price indices specified in the funding call is corrected, the calculation of the grant or surplus payment must be based on this data. In this case, a calculation procedure that has already been carried out must be carried out again within three months of receipt of the amended data by the granting authority on the basis of the amended data in accordance with sentence 1. The granting authority shall inform the aid beneficiary of the result of the recalculation procedure carried out in accordance with sentence 2, taking into account any grant and surplus payments already made. Number 9.2(g) shall apply accordingly.

### **9.4 Payments on account**

- (a) At the request of the aid beneficiary, the granting authority may grant an advance payment per quarter if the aid beneficiary provides security for any reimbursements plus interest.
- (b) Interest of five percentage points above the base interest rate shall be charged annually from the date of payment on any instalment payments made in excess.

### **9.5 Exclusions**

- (a) A grant is not awarded in a calendar year,
  - (i) if the aid beneficiary intentionally or through gross negligence uses energy carriers in a calendar year whose use is not permitted under the provisions of these funding guidelines (in particular Number 4.8 to 4.144), the funding call or the Carbon Contract for Difference; or

- (ii) if the aid beneficiary is unable to provide the evidence required under the provisions of this funding guideline, the funding call or the Carbon Contract for Difference with regard to the energy carriers used in the funded project due to wilful intent or gross negligence.
- (b) No grants will be awarded for the remaining term of the Carbon Contract for Difference if the relative reduction in greenhouse gas emissions compared to the reference system is not at least 60 % by the third full calendar year after the operational start at the latest. This does not apply if the aid beneficiary can demonstrate to the granting authority that the minimum value could not be achieved for reasons for which it is not responsible, in particular due to force majeure or delayed provision of infrastructure. Insofar as the granting authority pursuant to Number 4.16(b)(iv) has set a higher threshold value, this value shall apply to sentence 1.

#### **9.6 Reimbursement of the grant if the subsidized system is decommissioned**

In principle, subsidized plants may not be permanently decommissioned during the term of the Carbon Contract for Difference. If subsidized plants are to be permanently decommissioned before the end of the term of the Carbon Contract for Difference, this requires the prior approval of the funding authority. In the event of final decommissioning of the subsidized plants, the aid beneficiary of the funding must reimburse the funding granted to the funding authority and the granting authority must reimburse the excess payments already made to the aid beneficiary. The granting authority may limit the reimbursement of the grants granted after deduction of any surplus payments to 5 % or more of the maximum total grant amount, provided this is absolutely necessary to avoid undue hardship, also taking into account the sale value of the plants and the profitability of the aid beneficiary. Before asserting a reduced claim for repayment in favour of the aid beneficiary according to sentence 4, the granting authority must reach an agreement with the Federal Ministry of Finance.

## **10. EVALUATION, CONTROL AND TRANSPARENCY**

### **10.1 Evaluation, control and review**

- (a) In order to comply with the obligations under state aid, grant and budgetary law and to monitor success, the granting authority will carry out a review on the basis of the criteria set out in Number 3.2 and the indicators and criteria selected for this purpose, the granting authority will carry out an accompanying target achievement, impact and efficiency review of this funding guideline in accordance with the administrative regulations number 11a of Number 44 BHO in conjunction with number 2.2 of Number 7 BHO. An external evaluation may be commissioned.
- (b) The granting authority carries out a performance review of the projects implemented.
- (c) The effectiveness and efficiency of the funding guideline is continuously evaluated on the basis of the bidding procedures and funding programme carried out.

### **10.2 Information and audit rights**



- (a) The applicant and the aid beneficiary are each subject to comprehensive information and co-operation obligations, which extend to all phases of the application, grant and surplus payment as well as their success monitoring and evaluation. If the granting authority has a legitimate interest, it may also request information and details in connection with this funding programme from the aid beneficiary after termination of the Carbon Contract for Difference.
- (b) The applicant and the aid beneficiary must notify the granting authority immediately and without being asked of any changes to facts relevant to the decision on the grant and surplus payment and to the facts relevant to the grant at every stage of the application, during the grant period and until the final decision is issued.
- (c) The applicant and the aid beneficiary must provide the granting authority, the Federal Audit Office, the auditing bodies of the European Union and their authorised representatives ("information aid beneficiaries") with information upon request, allow them to inspect all of the company's books, documents and data, and permit audits, so that the information relevant to the disbursement (also on the basis of random checks independent of suspicion) can be checked, irregularities clarified, notification obligations fulfilled and the funding of decarbonisation projects, in particular in connection with the hydrogen market ramp-up, can be evaluated and improved for the future ("Information purposes"). Further details can be regulated in the model Carbon Contract for Difference.
- (d) The aid beneficiary must keep all documents relevant to the grant and all documents relevant to the surplus payment for at least ten years after the end of the term of the Carbon Contract for Difference and submit them in the event of an audit.
- (e) The applicant and the aid beneficiary must agree that
  - (i) the persons designated by the aid beneficiaries of the information are authorised to enter the operating and business premises and the associated properties of the aid beneficiary of the grant within normal business hours in order to fulfil their duties,
  - (ii) the aid beneficiaries of information may pass on information and findings to other authorities in order to fulfil their tasks, with reference to the confidentiality of this information,
  - (iii) the information aid beneficiaries may publish data in anonymised or aggregated form, provided this does not infringe the legitimate interests of the aid beneficiary,
  - (iv) the aid beneficiaries of information may process information and findings for information purposes, link them to official data and store them on data carriers,
  - (v) the granting authority may compare the information with other authorities,
  - (vi) other authorities may provide information to the granting authority and also transmit data that is subject to state secrecy,
  - (vii) the funding is recorded in a centralised federal system (funding database) on the basis of Number 44 BHO in conjunction with the administrative regulations number 9.1 and 9.2 of Number 44 BHO.
- (f) The information and co-operation obligations of this number 10.2 to which the applicant and the aid beneficiary are subject also extend to the companies and enterprises affiliated with the applicant and the aid beneficiary under company law or in any other contractual

form (in particular affiliated companies within the meaning of Numbers 15 et seq. of the German Stock Corporation Act) and their respective beneficial owners within the meaning of Number 3 of the German Money Laundering Act in the version currently in force and legal representatives, subject to any further provisions in the grant notification or Carbon Contract for Difference,

- (i) who are in possession of information which, in the view of the Federal Government or the granting authority, is required for the application, grant, surplus payment or evaluation of the grant or surplus payment or whose cooperation is required for this purpose;
- (ii) which the applicant or the aid beneficiary uses directly or indirectly to achieve the funding purpose defined in these funding guidelines;
- (iii) to which the applicant or the aid beneficiary of the grant provides funding, whether directly or indirectly; or
- (iv) from which the applicant or the aid beneficiary purchases energy or purchases energy for the aid beneficiary from third parties in connection with the project

(hereinafter referred to as "other parties obliged to provide information and cooperate").

- (g) The applicant and the aid beneficiary must release employees, business partners, authorities (in particular the Federal Network Agency and DEHSt) and other parties obliged to provide information and cooperation from their confidentiality obligations towards the aid beneficiaries of the information with regard to the documents and information required for the fulfilment of the information purposes. They must endeavour to ensure that the requested information is made available to the aid beneficiaries of the information immediately and directly.
- (h) The applicant and the aid beneficiary must ensure that the other parties obliged to provide information and cooperate fulfil the information and cooperation obligations arising from this funding guideline, the funding call and the Carbon Contract for Difference in the same form as the applicant or the aid beneficiary themselves. Violations are deemed to be violations by the applicant or violations by the aid beneficiary.
- (i) During the approval period, the aid beneficiary must inform the granting authority, without being asked, of any changes at the level of the other parties obliged to provide information and cooperate that are relevant to the funding and the surplus payment.
- (j) The agreement to comply with the provisions of this Number 10.2 must be declared in the application.

### 10.3 Reporting

- (a) The granting authority publishes the information required under state aid law in the European Commission's state aid transparency database<sup>29</sup> within six months of concluding a Carbon Contract for Difference if the grant awarded exceeds EUR 100,000.

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<sup>29</sup> The public search function of the state aid transparency database is available at: <https://webgate.ec.europa.eu/competition/transparency/public?lang=de>.

- (b) The granting authority prepares annual reports<sup>30</sup> on the grants awarded under this funding guideline, which the Federal Republic of Germany submits to the European Commission and the BMWK submits to the German Bundestag on request.

#### **10.4 Knowledge transfer plan**

- (a) The aid beneficiary must regularly and comprehensively inform the public and industry-related stakeholders about the use of the transformative production process in the course of knowledge transfer and thus contribute to its commercial scaling.
- (b) The granting authority may disclose the data of the applicant or aid beneficiary obtained in the context of the application for funding under this funding guideline and in the context of the funding to the public, industry-related stakeholders, public and private research institutions or other third parties (“beneficiaries”) in a non-exclusive manner and in compliance with the applicable data protection regulations. Disclosure of the data will be withheld if prohibited by law or if it may jeopardize public safety and order. If the data contains confidential information, trade secrets within the meaning of § 2 Number 1 of the Trade Secrets Protection Act (GeschGehG) or other data of the applicant or the aid beneficiary that is subject to intellectual property rights (“protected data”), such data will only be passed on in anonymized and aggregated form. The applicant or aid beneficiary of the funding must mark the protected data contained in the transmitted data as such to the granting authority if it is not obviously recognizable.
- (c) Notwithstanding Number 10.4(b), sentence 3, protected data may be passed on to public and private research institutions for the purpose of scientific research, even in non-aggregated and non-anonymized form, provided that the applicant or aid beneficiary has expressly consented to this. The applicant or aid beneficiary can make the granting of consent dependent on the conclusion of appropriate protective measures (including confidentiality agreements) with the recipient of the data. Publication of data received by a recipient in accordance with sentence 1 is not permitted. The granting authority must inform the applicant or aid beneficiary about the transfer of data to a recipient in accordance with sentence 1. Number 10.4(b), sentence 4 applies accordingly; publications of research results based on data transferred in accordance with sentence 1 may only contain this data in aggregated and anonymized form.
- (d) The granting authority may stipulate further information obligations. Legal requirements for the disclosure of data remain unaffected by this number.

## **11. FUNDING MATERIALITY**

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<sup>30</sup> Council Regulation (EU) 2015/1589 of 13 July 2015 laying down detailed rules for the application of Article 108 of the Treaty on the Functioning of the European Union (OJ L 248, 24.9.2015, p. 9) and Commission Regulation (EC) No 794/2004 of 21 April 2004 implementing Council Regulation (EC) No 659/1999 laying down detailed rules for the application of Article 93 of the EC Treaty (OJ L 140, 30.4.2004, p. 1), as last amended by Commission Regulation (EU) 2016/2105 of 1 December 2016 amending Annex I to Regulation (EC) No 794/2004 as regards the application of Article 93 of the EC Treaty (OJ L 140, 30.4.2004, p. 1), as last amended by Commission Regulation (EU) 2016/2105 of 1 December 2016 amending Annex I to Regulation (EC) No 794/2004 as regards the form to be used for the notification of State aid to the fisheries and aquaculture sector (OJ L 327, 2.12.2016, p. 19).

- 11.1 The grants awarded in accordance with these funding guidelines are subsidies within the meaning of Number 264 of the German Criminal Code and the German Subsidies Act (SubvG).
- 11.2 Before submitting the application, the eligible applicants shall be informed of the criminal liability for funding fraud and of their notification obligations pursuant to Number 3 SubvG and, in accordance with Administrative Regulation Number 3.4.6 on Number 44 BHO, the facts relevant to the funding in the specific case shall be specified in the form of a conclusive list. The information, including the list of facts relevant to the funding, must be included in the application form and must be accompanied by a confirmation from the applicant that they are aware of the criminal nature of the funding fraud and the facts relevant to the assessment of their application.
- 11.3 In the application and the annual submission of the calculation data in accordance with Number 9.2(b) the persons acting on behalf of the applicant and the aid beneficiary confirm that they are aware of the criminal offence of funding fraud and the notification obligations pursuant to Number 3 SubvG.

## **12. LEGAL CONSEQUENCES OF VIOLATIONS**

### **12.1 Cancellation of the funding decision and extraordinary termination of the Carbon Contract for Difference**

- (a) The cancellation of the grant notification is governed by Numbers 48 and 49 of the Administrative Procedure Act.
- (b) Even after it has become incontestable, a grant notification should be withdrawn or revoked in whole or in part with effect for the past if
- (i) the granting authority becomes aware that
    - (A) the aid beneficiary of the grant has committed a serious deception with regard to the conditions for the grant or has withheld information or is unable to provide the required evidence; or
    - (B) the aid beneficiary of the grant has attempted to obtain information that could have given it an improper advantage in the bidding procedure; or
    - (C) the aid beneficiary has negligently or intentionally provided misleading information that could have significantly influenced the award decision of the granting authority, or has attempted to provide such information; or
    - (D) the aid beneficiary of the grant has obtained the grant by providing incorrect or incomplete information.
  - (ii) the operational start of the subsidised project has not taken place at the latest 12 months after the deadline pursuant to Number 4.2(a). Insofar as the granting authority extends the deadline pursuant to Number 4.2(b) or Number 4.2(c) , this period shall apply instead of the deadline pursuant to 4.2(a); or
  - (iii) the subsidised project has not achieved a relative reduction in greenhouse gas emissions of at least 90 % compared to the reference system in the last 12 months of the term of the Carbon Contract for Difference due to intentional or negligent action on the part of

the aid beneficiary . It is assumed that the aid beneficiary is responsible for the breach of this obligation. In the event that the grant notification is cancelled in accordance with this paragraph, the aid beneficiary must repay 10 % of the total grant awarded to the aid beneficiary to the grantor. For each percentage Number that the project falls short of achieving the relative greenhouse gas emission reduction of 90 %, the repayment amount pursuant to sentence 3 shall be increased by 2 percentage points. For each additional percentage Number that the project falls short of achieving the relative greenhouse gas emission reduction of 75 %, the repayment amount pursuant to sentence 3 increases by a total of 4 percentage points. The repayment amount pursuant to sentence 3 is limited to the total grants awarded to the aid beneficiary; or

- (iv) the aid beneficiary of the grant has not or no longer used the grant for the intended purpose; or
  - (v) the aid beneficiary of the grant has not fulfilled conditions imposed on the basis of the grant award or has not fulfilled them within a set deadline, in particular has not submitted the prescribed proof of use in good time.
- (c) Unless the circumstances mentioned under (i) to (v) have already been taken into account under Number 12.1(b), the grant award may be withdrawn or revoked in whole or in part, also with effect for the past, even after it has become incontestable, if
- (i) the aid beneficiary or another party obliged to cooperate and provide information fulfils its obligations under Number 10.2 of these funding guidelines; or
  - (ii) the aid beneficiary provides calculation information in accordance with Number 9.2(b) which is incomplete information, not submitted on time or submitted incorrectly; or
  - (iii) the aid beneficiary of the grant does not disclose to the granting authority any other funding applied for or approved at the time of application or after submission of the application; or
  - (iv) the requirements according to number 8.8 sentence 1 are met; or
  - (v) it is certain that the operational start of the subsidised project cannot take place within 12 months after the deadline pursuant to Number 4.2(a) . In this case, the granting authority may cancel the grant award prior to the operational start of the funded project. If the granting authority has extended the deadline in accordance with Number 4.2(b) or Number 4.2(c), this shall apply. The forfeiture of any contractual penalties by the aid beneficiary remains unaffected by this; or
  - (vi) the Carbon Contract for Difference becomes null and void or is terminated before the end of the agreed contract term; or
  - (vii) the subsidised plants in accordance with number 9.6 have been permanently decommissioned with the prior consent of the granting authority.
- (d) As part of its decision to cancel the grant award, the granting authority must in particular weigh up the disadvantages that the cancellation of the grant award would entail for the grantor. Also in the cases of Number 12.1(b) the grant award may not be cancelled if the disadvantages for the granting authority outweigh the disadvantages.
- (e) The case of cancellation of the grant notification (withdrawal or revocation), including the cases referred to in paragraphs (b) and (c) as well as the case of a judicial cancellation of

the grant notification, are also included in the Carbon Contract for Difference as extraordinary grounds for termination.

## **12.2 Contractual penalty**

- (a) The Carbon Contract for Difference specifies a contractual penalty to be paid by the aid beneficiary in the event that the aid beneficiary intentionally or negligently breaches one of the following obligations. Further case groups for the contractual penalty can be provided for in the model Carbon Contract for Difference.
  - (i) The operational start of the subsidised project does not take place at the latest 36 months after the funding decision becomes final. If pursuant to Number 4.2 a different deadline has been specified in the funding call or in accordance with Number 4.2(b) or Number 4.2(c) the deadline has been extended after the grant notification has become final, this deadline shall apply instead of the 36 months; any further wilful omission after the expiry of one year, calculated from the expiry of the deadline, shall constitute a breach of duty.
  - (ii) The aid beneficiary or another party obliged to provide information and cooperate shall fulfil its obligations to provide information and cooperate within the meaning of Number 10.2 after a warning has been issued; any further wilful failure to do so after the expiry of one month, calculated from the date of the warning issued, shall constitute a breach of duty.
  - (iii) The aid beneficiary shall submit the annual calculation data pursuant to Number 9.2(b) in full, late or incorrectly after a warning has been issued; any further wilful omission after the expiry of one month in each case, calculated from the date of the warning issued, shall constitute a breach of duty.
  - (iv) The aid beneficiary shall not disclose to the granting authority any other funding applied for or approved after the conclusion of the Carbon Contract for Difference; any further wilful omission after the expiry of one month from the application for or approval of the other funding shall constitute a breach of duty.
  - (v) The aid beneficiary violates a condition imposed on the basis of the grant notification after a warning has been issued; any further intentional action after the expiry of one month from the date of the warning constitutes a breach of duty.
  - (vi) Until the end of the term of the Carbon Contract for Difference, the aid beneficiary shall fulfil the obligations set out in Number 7.8 after a warning has been issued; any further wilful failure to do so after the expiry of one month from the date of the warning shall constitute a breach of duty.
  - (vii) The aid beneficiary deviates by more than five percentage points in any one calendar year from the energy carrier use specified in Number 8.2(d) in the application for funding or from the adjusted relative energy carrier use specified in 7.9.
  - (viii) The sum of planned absolute greenhouse gas emissions in a calendar year and the previous calendar year falls short by more than 30 % of the sum of the planned greenhouse gas emission reductions in absolute terms for that calendar year and for the previous calendar year, as stated in the application pursuant to Number 8.2(d) or adjusted in accordance with Number 7.9.

- (b) With regard to Number 12.2(a)(viii) the contractual penalty to be paid by the aid beneficiary shall be calculated as follows: The sum of the deviations from the planned absolute greenhouse gas emission reductions realized in the respective calendar year and the preceding calendar year, minus 30 % of the sum of the planned absolute greenhouse gas emission reductions in the respective calendar year and the preceding calendar year, is multiplied by the current effective CO<sub>2</sub> price according to Number 7.1(b). The benchmark is the planned or adjusted absolute greenhouse gas emission reduction according to Number 8.2(d) or Number 7.9.

In the other cases specified in Number 12.2(a) the contractual penalty to be paid by the aid beneficiary shall be up to 1 % of the maximum total grant amount per breach of duty. For a negligent breach of obligations under Number 12.2(a) a lower amount of the contractual penalty may be provided for in the model Carbon Contract for Difference.

- (c) In the event that the aid beneficiary is a consortium pursuant to Number 5.2 the above Numbers 12.2(a) and (b) shall apply accordingly in the event that one or more consortium members forfeit the contractual penalty in accordance with the above paragraphs. All consortium members shall be jointly and severally liable for payment of the contractual penalties forfeited by one or more consortium members. Further details are set out in the model Carbon Contract for Difference.

### **12.3 Announcement of final fines, court decisions and serious violations of the grant notification or the Carbon Contract for Difference**

- (a) The granting authority shall publish on its website for a period of five years the issue of final administrative fines and legally binding court decisions in which a breach of antitrust law was established, a fine or a fine or custodial sentence was imposed in connection with a grant under this funding guideline or a Carbon Contract for Difference, as well as serious breaches of the grant notification or the Carbon Contract for Difference. The notice must state the nature of the offence, the aid beneficiary of the grant and the sanction.
- (b) The aid beneficiary of the grant must agree in the Carbon Contract for Difference with the notification in accordance with para. (a) declare its agreement.

## **13. PERIOD OF VALIDITY**

This funding guideline enters into force [•], 2025. It will be repealed when all current Carbon Contract for Difference s have been terminated, but no later than December 31, 2050, unless the period of validity of this funding guideline is extended in advance.

Agreement with the BMF must be reached before a funding call is published. The funding guideline will be evaluated for the first time after the third funding call at the latest and, if necessary, adapted in agreement with the BMF. Further evaluations and adjustments remain reserved. For funding applications submitted before the amended funding guideline comes into force, the latest version of the replaced guideline applies, even if the decision on the application is made after the amended guideline comes into force.

Berlin, [•] 2025

Federal Ministry  
for Economic Affairs and Climate Action

per pro  
Dr. Beate Baron



## Appendix 1

### Calculation of the disbursement amount and determination of the maximum funding amount

The amount of the annual grant or the annual surplus payments ("**disbursement amount**") is determined by the granting authority on the basis of the aid beneficiary's bid in accordance with the following provisions. **Number 1** explains the general rules for calculating the disbursement amount. It describes the dynamisation of the reference system, which takes into account the dynamic development of the corresponding energy carrier prices. **Number 2** specifies how the dynamic development of the energy carrier prices of the project is mapped. **Number 3** explains how the maximum amount of funding is calculated. **Number 4** contains provisions in the event that upstream reference systems apply to the project. The calculations are based on specific variables (normalised to a unit of the product). **Number 5** therefore defines specific variables based on the absolute, measurable variables.

The structure of the dynamisation depends on which energy carriers are dynamised in accordance with the specifications of the granting authority set out in the funding call and which energy carriers are used in the project. If a funding call specifies that only individual or several energy carriers in the reference system are to be dynamised, **Number 1** applies. If individual or several energy carriers of the projects are also dynamised, **Number 2** also applies.

It should be noted that the variables listed below are predominantly time-variable. The superscript  $t$  for the temporal variability is usually omitted in the following for better readability and is only used for planned values that are not constant over time. Values realised during implementation are marked with the superscript  $real$  and therefore do not have the superscript  $t$ . The temporal dependency of the variables is listed in the explanatory tables after each formula. The terms  $year$  and  $yearly$  refer to the complete calendar years and, in the case of an operational start during the year, to the first and last partial year. Absolute values are denoted below with capitalised variables, while standardised values are denoted with the corresponding lower-case letters. This paragraph also applies to Appendix 2 and Appendix 3.

#### 1. General calculation of the payout amount

- 1) In principle, the payment amount of the annual funding is calculated as shown in the following equation. The amount paid out is limited by the maximum annual amount of funding.

$$Z_{KSV} = (p_{KSV}^{Basis} + \Delta k_{KSV}^{Ref,t} - p_{CO_2}^{eff}) \Delta e^{real} Q^{real} - R_{nKSV} - R_{GP} - \Delta F_{Ely} \quad [1a]$$

The annual payment amount  $Z_{KSV}$  is calculated from the difference between the base contract price  $p_{KSV}^{Basis}$  (usually adjusted by a dynamisation component  $\Delta k_{KSV}^{Ref,t}$  see Number 1 paragraph 3) and an effective CO price  $p_{CO_2}^{eff}$  (see Number 1 paragraph 2), multiplied by the annual specific greenhouse gas emission reduction achieved in real terms  $\Delta e^{real}$  and multiplied by the annual production volume achieved in real terms  $Q^{real}$  less any other subsidies  $R_{nKSV}$  that the company receives for the project after submitting the application and - depending on the provisions of the funding call - less any green surplus revenues, if applicable  $R_{GP}$  as well as funding for hydrogen used in the project that has been produced by subsidised electrolysis plants of an affiliated

company as well as funding for hydrogen used in the project that has been produced by subsidised electrolysis plants of an affiliated company  $\Delta F_{Ely}$  (see Number 1 (7)).

The specific greenhouse gas emission reduction realised is calculated as follows:

$$\Delta e^{real} = e_{Ref} - e^{real} \quad [2]$$

The realised specific greenhouse gas emissions of the project  $e^{real}$  are defined as a value greater than or equal to zero. Negative values are set to zero.

In addition, further corrections for energy carrier price adjustments and the adjustment of specific use and planned greenhouse gas emission reductions are possible. These and other elements are defined and explained in more detail below.

The base contract price  $p_{KSV}^{Basis}$  corresponds to the bid of the aid beneficiary.

If no reduction in greenhouse gas emissions is achieved ( $\Delta e^{real} \leq 0$ ), the following applies  $Z_{KSV} = 0$ .

If the realised absolute greenhouse gas emission reduction  $\Delta E^{real} = \Delta e^{real} Q^{real}$  exceeds the planned absolute greenhouse gas emission reduction  $\Delta E^{Plan,t} = \Delta e^{Plan,t} Q^{Plan,t}$  by more than 30 % ( $\Delta E^{real} > 1,3\Delta E^{Plan,t}$ ), the following applies:

$$Z_{KSV} = (p_{KSV}^{Basis} + \Delta k_{KSV}^{Ref,t} - p_{CO_2}^{eff}) 1,3\Delta E^{Plan,t} - R_{nKSV} - R_{GP} - \Delta F_{Ely} \quad [3]$$

Element	Description	Temporal variability
$Z_{KSV}$	Amount paid out under the Carbon Contract for Difference [EUR]	Determined annually
$p_{KSV}^{Basis}$	Base contract price [EUR/t CO <sub>2</sub> -eq.]	Constant over time
$\Delta k_{KSV}^{Ref,t}$	Dynamisation component for the dynamic energy price adjustment of the reference system [EUR/t CO <sub>2</sub> -eq.]	Determined annually
$p_{CO_2}^{eff}$	Effective CO <sub>2</sub> price [EUR/t CO <sub>2</sub> -eq.]	Determined annually
$\Delta e^{real}$	Realised specific greenhouse gas emission reduction of the project [t CO <sub>2</sub> -eq./ME product]	Determined annually
$e_{Ref}$	Specific greenhouse gas emissions of the reference system [t CO <sub>2</sub> -eq./ME product]	Constant over time
$e^{real}$	Realised specific greenhouse gas emissions of the project [t CO <sub>2</sub> -eq./ME product]	Determined annually
$Q^{real}$	Realised production volume of the project [ME Product]	Determined annually
$R_{nKSV}$	Other funding that was approved or increased after submission of the application and was granted in accordance with Number	Determined annually

	7.5(b) must be deducted from the amount disbursed in the calendar year following the calendar year in which the other funding was disbursed or otherwise granted [EUR]	
$R_{GP}$	Adjustment date to take account of the green surplus revenue [EUR]	Determined annually
$\Delta F_{Ely}$	Funding for hydrogen used in the project that has been produced by subsidised electrolysis plants of an affiliated company and is to be deducted in accordance with Number 7.5(d). [EUR]	Determined annually
$\Delta E^{real}$	Realised greenhouse gas emission reduction of the project [t CO <sub>2</sub> -eq.]	Determined annually
$\Delta E^{Plan,t}$	Planned greenhouse gas emission reduction of the project in year t [t CO <sub>2</sub> -eq.]	Defined for each year
$\Delta e^{Plan,t}$	Planned specific greenhouse gas emission reduction of the project in year t [t CO <sub>2</sub> eq./ME product]	Defined for each year
$Q^{Plan,t}$	Planned production volume of the project in year t [ME product]	Defined for each year

Table 1

$R_{GP}$  is only applicable if the granting authority specifies in the funding call that the green surplus is to be deducted.

2) The effective CO<sub>2</sub> price is as follows:

$$p_{CO_2}^{eff} = \frac{(e_{Ref} - a_{Ref}) - (e^{real} - a^{real})}{\Delta e^{real}} p_{EUA}^{real} \quad [4]$$

The effective CO<sub>2</sub> price takes into account costs and revenues resulting from the EU ETS 1. This takes into account the difference between the project and the respective reference system subject to the EU ETS 1, taking into account the respective free assignment.

Element	Description	Temporal variability
$a_{Ref}$	Free specific assignment for the reference system [t CO <sub>2</sub> -eq./ME product]	Determined annually
$a^{real}$	Realised specific free assignment for the project [t CO <sub>2</sub> -eq./ME product]	Determined annually
$p_{EUA}^{real}$	Indexed CO <sub>2</sub> price in the EU ETS 1 [EUR/t CO <sub>2</sub> -eq.]	Determined annually

Table 2

3) The following applies to the dynamisation component to take into account the development of the energy carrier price of the reference system during the term of the contract (dynamisation):

$$\Delta k_{KSV}^{Ref,t} = - \frac{\sum_i \beta_i^{Ref} d_i^{Ref} (p_i^{real} - p_i^{Basis})}{\Delta e^{Plan,t}} \quad [5]$$

The planned specific greenhouse gas emission reduction realised is calculated as follows:

$$\Delta e^{\text{Plan},t} = e_{\text{Ref}} - e^{\text{Plan},t} \quad [6]$$

The realised specific greenhouse gas emissions of the project  $e^{\text{Plan},t}$  are defined as a value greater than or equal to zero. Negative values are set to zero. This adjustment compensates for higher or lower differential costs for the implementation of the project relative to the respective reference system. These are calculated from the difference between the real indexed energy carrier prices for the energy carriers of the reference system and the base prices for the dynamised energy carriers of the reference system.

Element	Description	Temporal variability
$d_i^{\text{Ref}}$	Specific use of the reference system of energy carrier $i$ in the reference system [MWh/ME product]	Constant over time
$\beta_i^{\text{Ref}}$	Factor for determining the proportion of dynamisation of energy carrier $i$ of the reference system	Constant over time
$p_i^{\text{real}}$	Real indexed price for energy carrier $i$ [EUR/MWh]	Determined annually
$p_i^{\text{Basis}}$	Base price for energy carrier $i$ [EUR/MWh]	Constant over time
$e^{\text{Plan},t}$	Planned specific greenhouse gas emission reduction of the project in year $t$ [t CO <sub>2</sub> -eq./ME product]	Defined for each year

Table 3

- 4) The factor  $\beta_i^{\text{Ref}}$  is determined by the granting authority for each energy carrier in the funding call.
- 5) The sum of the base contract price and the dynamisation component described in Number 1 paragraph 3 is the dynamised contract price.
- 6) Other funding that was approved or increased after the application was submitted and was therefore not taken into account in the bid and in the calculation of the funding cost efficiency will be deducted from the amount paid out in accordance with Number 7.5(b) shall be deducted ( $R_{\text{nKSV}}$ ).
- 7) Insofar as hydrogen produced by electrolysis plants of an affiliated company of the aid beneficiary is used in the funded project, the funding paid out or otherwise granted to an affiliated company of the aid beneficiary in respect of these electrolysis plants shall be deducted in accordance with Number 7.5(d).

The amount of the deduction is calculated from the funding for CAPEX and the operation of the electrolysis plant in relation to the production volume of the electrolysis plant. The CAPEX-related part of the funding is to be set in relation to the capacity of the electrolysis plant in megawatts of electrical output  $P_{\text{Ely}}$ , its efficiency  $\eta_{\text{Ely}}$  and its annual use rate  $j_{\text{Ely}}$  as well as the depreciation period of the electrolysis plant  $t_{\text{Ely}}$  as follows:

$$f_{\text{ElyCAPEX}} = \frac{F_{\text{ElyCAPEX}}}{P_{\text{Ely}} \cdot \eta_{\text{Ely}} \cdot j_{\text{Ely}} \cdot t_{\text{Ely}}} \quad [7]$$

The standard value for the efficiency of the electrolysis plant  $\eta_{Ely}$  is set at 65 %, the standard value for the annual use rate  $j_{Ely}$  at 46 %. Higher values for  $\eta_{Ely}$  and  $j_{Ely}$  must be verified by the aid beneficiary. The amortisation period  $t_{Ely}$  is set at 131,472 hours (15 years).

The granting authority may specify different default values for  $\eta_{Ely}$  and  $j_{Ely}$  in the funding call and determine a different amortisation period  $t_{Ely}$ .

The amount calculated in this way is to be multiplied by the annual quantity of hydrogen used in the project, which was produced by the subsidised electrolysis plant, as follows:

$$\Delta F_{ElyCAPEX} = D_{H_2}^{Ely,KSV} \cdot f_{ElyCAPEX} \quad [8]$$

Insofar as the funding of an affiliated company of the aid beneficiary was paid out or otherwise granted for the operation of an electrolysis plant, the amount of the deduction relating to this funding is calculated as follows:

$$\Delta F_{ElyOPEX} = D_{H_2}^{Ely,KSV} \cdot f_{ElyOPEX} \quad [9]$$

The sum of the amounts  $\Delta F_{ElyOPEX}$  and  $\Delta F_{ElyCAPEX}$  calculated in this way represents the amount of the deduction in accordance with number 7.5(d):

$$\Delta F_{Ely} = \Delta F_{ElyCAPEX} + \Delta F_{ElyOPEX} \quad [10]$$

Element	Description	Temporal variability
$F_{ElyCAPEX}$	CAPEX funding paid out or otherwise granted for electrolysis plant [EUR]	Constant over time
$P_{Ely}$	Electric power of the electrolysis plant [ $MW_{el}$ ]	Constant over time
$\eta_{Ely}$	Efficiency of electrolysis system for hydrogen in relation to net calorific value [ $MW_{H_2}/MW_{el}$ ]	Constant over time
$t_{Ely}$	Depreciation period of the electrolysis plant [hours]	Constant over time
$j_{Ely}$	Annual use factor	Constant over time
$f_{ElyCAPEX}$	Deduction amount for hydrogen used in the subsidised project per MWh produced by the subsidised electrolysis plant [EUR/MWh]	Constant over time
$D_{H_2}^{Ely,KSV}$	Quantity of hydrogen used in the subsidised project (in the accounting year), which was produced by the subsidised electrolysis plant [MWh]	Defined for each year
$f_{ElyOPEX}$	Funding paid out or otherwise granted to an affiliated company of the aid beneficiary for the operation of the electrolysis plant per production quantity [EUR/MWh]	Defined for each year
$\Delta F_{ElyCAPEX}$	Amount to be deducted from the grant with regard to the CAPEX-related part of the grant [EUR]	Defined for each year

Element	Description	Temporal variability
$\Delta F_{ElyOPEX}$	Amount to be deducted from the grant in respect of a funding paid out or otherwise granted to an affiliated company of the aid beneficiary [EUR]	Defined for each year

Table 4

## 2. Calculation of the disbursement amount for dynamisation of energy carriers of the project

- 1) The granting authority may provide for an energy carrier price adjustment for one or more energy carriers in the project. The following equation then applies to the disbursement amount:

$$Z_{KSV} = (p_{KSV}^{Basis} + \Delta m_{KSV}^{Plan,t} + \Delta k_{KSV}^{Plan,t} - p_{CO_2}^{eff}) \Delta e^{real} Q^{real} - R_{nKSV} - R_{GP} - \Delta F_{Ely} \quad [1b]$$

The amount paid out is limited by the maximum annual funding amount.

If no reduction in greenhouse gas emissions is achieved ( $\Delta e^{real} \leq 0$ ), the following applies  $Z_{KSV} = 0$ .

$R_{GP}$  is only applicable if the granting authority specifies in the funding call that the green surplus is to be deducted.

If the granting authority provides for an energy carrier price adjustment for one or more energy carriers in the project, the dynamisation component under Number 2 (6) replaces the dynamisation component under Number 1 (3).

If no reduction in greenhouse gas emissions is achieved ( $\Delta e^{real} \leq 0$ ), the following applies:  
 $Z_{KSV} = 0$ .

If the realised absolute greenhouse gas emission reduction  $\Delta E^{real} = \Delta e^{real} Q^{real}$  exceeds the planned absolute greenhouse gas emission reduction  $\Delta E^{Plan,t} = \Delta e^{Plan,t} Q^{Plan,t}$  by more than 30 % ( $\Delta E^{real} > 1,3\Delta E^{Plan,t}$ ), the following applies:

$$Z_{KSV} = (p_{KSV}^{Basis} + \Delta m_{KSV}^{Plan,t} + \Delta k_{KSV}^{Plan,t} - p_{CO_2}^{eff}) 1,3\Delta E^{Plan,t} - R_{nKSV} - R_{GP} - \Delta F_{Ely} \quad [11]$$

Element	Description	Temporal variability
$\Delta m_{KSV}^{Plan,t}$	Adjustment of the base contract price to the annual specific energy carrier use to be applied [EUR/t CO <sub>2</sub> -eq.]	Defined for each year
$\Delta k_{KSV}^{Plan,t}$	Dynamisation component for the dynamic energy carrier price adjustment [EUR/t CO <sub>2</sub> -eq.]	Determined annually

Table 5

- 2) The planned energy carrier use is specified by indicating the planned specific energy carrier use of the dynamised energy carriers in each year  $t$  ( $d_i^{Plan,dyn,t}$ ) and the non-dynamised energy carriers in each year  $t$  ( $d_i^{Plan,ndyn,t}$ ). This information is provided for projects as a whole. If the project comprises several products that can be assigned to different reference systems, the information is

provided for each of these products. If this is not possible for technical reasons, the absolute figures in Appendix 3 are given for the entire project as a total.

- 3) In each year of the contract term, the payment is adjusted by taking into account the planned change in greenhouse gas emission reductions over time and the planned change in the dynamised energy carrier use over time in the following adjustment date:

$$\Delta m_{KSV}^{Plan,t} = p_{KSV}^{Basis} \left( \frac{\Delta e^{Plan,mittel}}{\Delta e^{Plan,t}} - 1 \right) + \frac{1}{\Delta e^{Plan,t}} \sum_i p_i^{Basis} \left( d_i^{Plan,dyn,t} - d_i^{Plan,dyn,mittel} \right) \quad [12]$$

On the one hand, this term adjusts the base contract price to the planned annual specific greenhouse gas emission reduction of the project and, on the other hand, the differential cost changes resulting from the planned adjustment of the energy carrier use are taken into account.

Element	Description	Temporal variability
$d_i^{Plan,dyn,t}$	Specific use of the project for the dynamised energy carrier i in year t [MWh/ME product]	For each year fixed
$d_i^{Plan,dyn,mittel}$	Average planned specific use of the project for the dynamised energy carrier i [MWh/ME product]	Constant over time
$\Delta e^{Plan,mittel}$	Average planned specific greenhouse gas emission reduction of the project [t CO <sub>2</sub> -eq./ME product]	Constant over time

Table 6

- 4) The average planned specific use of the dynamised energy carrier i in the project ( $d_i^{Plan,dyn,mittel}$ ) is calculated as a weighted average for all years t of the planned energy carrier use as follows.

$$d_i^{Plan,dyn,mittel} = \frac{\sum_t Q^{Plan,t} d_i^{Plan,dyn,t}}{\sum_t Q^{Plan,t}} \quad [13]$$

By adjusting the planned energy carrier use and the planned reduction in greenhouse gas emissions in accordance with Number 7.3,  $d_i^{Plan,dyn,mittel}$  does not change.

- 5) The average planned greenhouse gas emission reduction of the project ( $\Delta e^{Plan,mittel}$ ) is calculated as a weighted average for all years t of the planned greenhouse gas emission reduction as follows:

$$\Delta e^{Plan,mittel} = \frac{\sum_t Q^{Plan,t} \Delta e^{Plan,t}}{\sum_t Q^{Plan,t}} \quad [14]$$

By adjusting the planned energy carrier use and the planned reduction in greenhouse gas emissions in accordance with Number 7.3,  $\Delta e^{Plan,mittel}$  does not change.

- 6) The dynamisation component is calculated according to the following formula, whereby the dynamisation of the reference system is also taken into account:

$$\Delta k_{KSV}^{Plan,t} = \frac{\sum_i \beta_i^{Vorhaben} d_i^{Plan,dyn,t} (p_i^{real} - p_i^{Basis})}{\Delta e^{Plan,t}} - \frac{\sum_i \beta_i^{Ref} d_i^{Ref,dyn,t} (p_i^{real} - p_i^{Basis})}{\Delta e^{Plan,t}} \quad [15]$$

The dynamisation component defined in this way represents a positive adjustment of the base contract price if the energy carrier price adjustment for the dynamised energy carriers of the project is greater than that for the dynamised energy carriers of the respective reference system. In the opposite case, the dynamisation component is negative. The risk arising from changes in the dynamised energy carrier prices compared to the fixed base prices is thus taken into account within the framework of the other requirements and restrictions of these funding guidelines.

Element	Description	Temporal variability
$\beta_i^{\text{Vorhaben}}$	Factor for determining the proportion of dynamisation of energy carrier $i$ of the project	Constant over time
$d_i^{\text{Ref,dyn,t}}$	Specific use of the energy carrier $i$ in the reference system, adjusted by the non-dynamised energy carrier use in the project in year $t$ [MWh/ME product]	Defined for each year

Table 7

- 7) The factor  $\beta_i^{\text{Vorhaben}}$  is defined identically by the granting authority for each energy carrier for all projects in the funding call. Even if the value is not equal to one, these energy carriers are still considered to be fully dynamised and are therefore not included in the calculation of  $d_i^{\text{Ref,dyn,t}}$  in accordance with paragraph 8.
- 8) The dynamised energy carrier use in the reference system are adjusted each year based on the energy carrier use of the project that are not dynamised. To do this, the net energy carrier use is first determined for each year. For each energy carrier in the reference system, the use for the same energy carrier in the project is deducted if it is not dynamised. The value of this difference is capped at zero. The energy carrier use of the same energy carrier of the reference system is deducted from each non-dynamised energy carrier of the project. The value of this difference is capped at zero. This results in the following net use for each energy carrier:

$$d_i^{\text{Ref,netto,t}} = \max(d_i^{\text{Ref}} - d_i^{\text{Plan,ndyn,t}}, 0) \quad [16]$$

$$d_i^{\text{Plan,ndyn,netto,t}} = \max(d_i^{\text{Plan,ndyn,t}} - d_i^{\text{Ref}}, 0) \quad [17]$$

The remaining non-dynamised energy carrier use of the project is then deducted proportionately from the remaining energy carrier use of the reference system. For this purpose, the specific net use of the energy carriers of the reference system is adjusted as follows in order to determine the specific use of the energy carrier  $i$  in the reference system, which is used for the purpose of dynamisation ( $d_i^{\text{Ref,dyn,t}}$ ):

$$d_i^{\text{Ref,dyn,t}} = \max\left(d_i^{\text{Ref,netto,t}} \left(1 - \frac{\sum_i d_i^{\text{Plan,ndyn,netto,t}}}{\sum_i d_i^{\text{Ref,netto,t}}}\right), 0\right) \quad [18]$$

If  $d_i^{\text{Ref,dyn,t}}$  becomes less than zero, the value is set to zero. If  $d_i^{\text{Ref,netto,t}}$  is zero for all energy carriers in a year, it is also  $d_i^{\text{Ref,dyn,t}}$  is zero for all energy carriers. The granting authority may



stipulate that certain energy carriers in the reference system are not affected by this rule. The following applies to these:

$$d_i^{\text{Ref,dyn,t}} = d_i^{\text{Ref}} \quad [19]$$

Element	Description	Temporal variability
$d_i^{\text{Plan,ndyn,t}}$	Specific use of non-dynamised energy carriers i in the project in year t [MWh/ME product]	Defined for each year
$d_i^{\text{Plan,ndyn,netto,t}}$	Specific net use of non-dynamised energy carriers i in the project in year t [MWh/ME product]	Defined for each year
$d_i^{\text{Ref,netto,t}}$	Specific net use of the energy carriers i in the reference system in year t [MWh/ME product]	Defined for each year

Table 8

### 3. Determination of the maximum annual and maximum total funding amount

- 1) In the event that there is no dynamisation of energy carriers in the project, the maximum annual funding amount and thus the maximum annual payment amount is calculated as follows:

$$Z_{\text{KSV}}^{\text{max,t}} = (p_{\text{KSV}}^{\text{Basis}} + \Delta k_{\text{max.KSV}}^{\text{Ref,t}} - p_{\text{CO}_2}^{\text{sicher,t}}) \Delta e^{\text{Plan,t}} Q^{\text{Plan,t}} - R_{\text{nKSV}}^{\text{max,t}} \quad [20]$$

If the calculated maximum annual amount of funding for a year is negative, the following applies for that year:

$$Z_{\text{KSV}}^{\text{max,t}} = 0$$

Element	Description	Temporal variability
$Z_{\text{KSV}}^{\text{max,t}}$	Maximum annual amount of funding, calculated in accordance with Number 3, paragraph 1 or 3, depending on the application [EUR]	Defined for each year
$\Delta k_{\text{max.KSV}}^{\text{Ref,t}}$	Maximised dynamisation component for the reference system [EUR/t CO <sub>2</sub> -eq.]	Defined for each year
$p_{\text{CO}_2}^{\text{sicher,t}}$	Insurance price for the CO <sub>2</sub> price, which is used to determine the maximum annual amount of funding [EUR/t CO <sub>2</sub> -eq.]	Defined for each year
$R_{\text{nKSV}}^{\text{max,t}}$	Other funding that was approved or increased after the application was submitted and leads to a permanent reduction in funding [EUR]	Defined for each year

Table 9

- 2) The term of the maximised dynamisation component takes into account the additional budget required that could be paid out as a result of the dynamisation of the reference system. This term

does not represent an independent restriction for  $\Delta k_{KSV}^{Ref}$ .

The following applies to the term of the maximised dynamisation component:

$$\Delta k_{max.KSV}^{Ref,t} = \frac{\alpha \sum_i \beta_i^{Ref} d_i^{Ref} p_i^{sicher,t}}{1+\alpha \Delta e^{Plan,t}} \quad [21]$$

Element	Description	Temporal variability
A	Insurance factor for determining the maximised dynamisation component	Constant over time
$p_i^{sicher,t}$	Insurance price for energy carrier i, which is used to determine the maximum annual amount of funding [EUR/MWh]	Defined for each year

Table 10

- 3) In the event that the project's energy carriers are dynamised, the maximum annual funding amount is calculated as follows:

$$Z_{KSV}^{max,t} = (p_{KSV}^{Basis} + \Delta m_{KSV}^{Plan,t} + \Delta k_{max.KSV}^{Plan,t} - p_{CO_2}^{sicher,t}) \Delta e^{Plan,t} Q^{Plan,t} - R_{nKSV}^{max,t} \quad [22]$$

Element	Description	Temporal variability
$\Delta k_{max.KSV}^{Plan,t}$	Maximised dynamisation component [EUR/t CO <sub>2</sub> -eq.]	Defined for each year

Table 11

- 4) The following applies to the maximised dynamisation component:

$$\Delta k_{max.KSV}^{Plan,t} = \alpha \left( \frac{\sum_i \beta_i^{Vorhaben} d_i^{Plan,dyn,t} p_i^{sicher,t}}{\Delta e^{Plan,t}} + \frac{1}{1+\alpha} \frac{\sum_i \beta_i^{Ref} d_i^{Ref,dyn,t} p_i^{sicher,t}}{\Delta e^{Plan,t}} \right) \quad [23]$$

This does not constitute an independent restriction for  $\Delta k_{KSV}^{Plan,t}$  represents an independent restriction for In addition to Number 3 (2), the insurance prices and energy carrier use of the dynamised energy carriers of the project are therefore also used to define the maximised dynamisation component. In the event that the same energy carrier is dynamised on the part of the project and the reference system, only the amount of the difference in use is taken into account in the calculation of the maximum amount of funding. If the use in regard to the reference system is greater, the difference is treated in the same way as energy carriers that are only used in the reference system, otherwise in the same way as energy carriers that are only used in the project.

- 5) The insurance factor  $\alpha$  for determining the maximised dynamisation component is defined in the funding call. The insurance price for the CO price  $p_{CO_2}^{sicher,t}$  and the insurance price for the energy

carrier  $p_i^{sicher,t}$  are announced in the funding call as a time series for each calendar year.  $p_{CO_2}^{sicher,t}$  is determined in accordance with the trend of the EEX EUA futures.

$p_{CO_2}^{sicher,t}$  and  $p_i^{sicher,t}$  do not represent a limit for  $p_{CO_2}^{eff}$  or  $p_i^{real}$  respectively.

- 6) If the planned greenhouse gas emission reduction  $\Delta e^{Plan,t}$  for a year is negative or zero, the following applies for that year  $Z_{KSV}^{max,t} = 0$ .
- 7) The maximum total funding amount is defined as the sum of the maximum annual funding amounts for the respective years, calculated in accordance with Number 3 (1) or (3) depending on the application.

$$Z_{KSV}^{max,gesamt} = \sum_t Z_{KSV}^{max,t} \quad [24]$$

Element	Description	Temporal variability
$Z_{KSV}^{max,gesamt}$	Maximum total funding amount [EUR]	Constant over time

Table 12

- 8) If the operational start is postponed in accordance with Number 7.9(a) the maximum funding amount from the funds available under Number 7.9(c) or Number 7.9(d) adjusted annual plan values with the values specified in the funding call for the respective calendar year for  $p_{CO_2}^{sicher,t}$  and  $p_i^{sicher,t}$  recalculated in accordance with the provisions of this Number. The values determined in this way, which have not yet been corrected with regard to the maximum annual funding amount, are designated as  $Z_{KSV,verschoben}^{max,t,unkorr}$  labelled.

- a) The sum of these values over all calendar years of the term of the Carbon Contract for Difference is calculated as follows:

$$Z_{KSV,verschoben}^{max,gesamt,unkorr} = \sum_t Z_{KSV,verschoben}^{max,t,unkorr} \quad [25]$$

Element	Description	Temporal variability
$Z_{KSV,verschoben}^{max,t,unkorr}$	Uncorrected value of the maximum annual amount of funding for year t if the operational start is postponed [EUR]	Defined for each year
$Z_{KSV,verschoben}^{max,gesamt,unkorr}$	Uncorrected value of the maximum total funding amount if the operational start is postponed [EUR]	Constant over time

Table 13

- b) If the maximum total funding amount determined in accordance with paragraph 8 a  $Z_{KSV,verschoben}^{max,gesamt,unkorr}$  exceeds the maximum total funding amount specified in the grant notification  $Z_{KSV}^{max,gesamt}$  in the notice of grant shall apply:

- i) The maximum annual funding amounts calculated in accordance with paragraph 8 a shall be reduced proportionately:

$$Z_{KSV,verschoben}^{\max,t} = Z_{KSV,verschoben}^{\max,t,unkorr} \frac{Z_{KSV}^{\max,gesamt}}{Z_{KSV,verschoben}^{\max,gesamt,unkorr}} \quad [26]$$

- ii) The sum of the maximum annual funding amounts reduced in accordance with paragraph 8b i) corresponds to the maximum total funding amount originally specified in the grant notification:

$$Z_{KSV,verschoben}^{\max,gesamt} = \sum_t Z_{KSV,verschoben}^{\max,t} = Z_{KSV}^{\max,gesamt} \quad [27]$$

Element	Description	Temporal variability
$Z_{KSV,verschoben}^{\max,t}$	Corrected value of the maximum annual amount of funding for year t if the operational start is postponed [EUR]	Defined for each year
$Z_{KSV,verschoben}^{\max,gesamt}$	Corrected value of the maximum total funding amount if the operational start is postponed [EUR]	Constant over time

Table 14

- c) If the maximum total funding amount determined in accordance with paragraph 8 a is  $Z_{KSV,verschoben}^{\max,gesamt,unkorr}$  is equal to or less than the maximum total funding amount specified in the grant notification  $Z_{KSV}^{\max,gesamt}$  the values of the determined maximum annual funding amounts and the determined maximum total funding amount shall be determined as calculated in accordance with paragraph 8 a and shall apply:

$$Z_{KSV,verschoben}^{\max,t} = Z_{KSV,verschoben}^{\max,t,unkorr} \quad [28]$$

and

$$Z_{KSV,verschoben}^{\max,gesamt} = \sum_t Z_{KSV,verschoben}^{\max,t} \leq Z_{KSV}^{\max,gesamt} \quad [29]$$

#### 4. Provisions for upstream reference systems

- 1) If upstream reference systems are used, the planned input quantity of the upstream product  $\Lambda^{\text{real}}$  shall be used in the calculations in accordance with Appendix 1, Number 1-3 and Number 5 as well as Appendix 2 and Appendix 3 instead of the planned production quantity of the project  $Q^{\text{Plan},t}$  and instead of the realised production quantity of the project  $Q^{\text{real}}$  the realised input quantity of the preliminary product  $\Lambda^{\text{real}}$ . Specific quantities are related to the unit of measure of the preliminary product.
- 2) When calculating the amount paid out, only the free assignment of emission allowances for the production of the preliminary product is taken into account at all points.

- 3) For the upstream reference systems, the greenhouse gas emissions of the reference system take into account the greenhouse gas emissions resulting from the production or use of the upstream product. To these greenhouse gas emissions are added the greenhouse gas emissions that are additionally produced during the manufacture of the subsidised products, downstream or in parallel to those of the reference system for the upstream product. These additional greenhouse gas emissions are referred to as product emissions  $e_{Q_j}^{Ref}$ .

The planned specific greenhouse gas emissions of the reference system of a subsidised product or several subsidised products are defined as follows:

$$e_{Ref}^{Plant,t} = e_{\Lambda}^{Ref} + \frac{\sum_j Q_j^{Plant,t} e_{Q_j}^{Ref}}{\Lambda^{Plan,t}} \quad [30]$$

The specific greenhouse gas emissions of the reference system are used to determine the greenhouse gas emission reductions realised during the implementation of the project:

$$e_{Ref} = e_{\Lambda}^{Ref} + \frac{\sum_j Q_j^{Real} e_{Q_j}^{Ref}}{\Lambda^{real}} \quad [31]$$

- 4) The greenhouse gas emissions of the project are determined from the greenhouse gas emissions of the entire process, which includes both the manufacture of the preliminary product and the subsidised product.

Element	Description	Temporal variability
$\Lambda^{Plan,t}$	Planned use quantity of the preliminary product of the project in year t [ME preliminary product]	Defined for each year
$\Lambda^{real}$	Real input quantity of the preliminary product of the project [ME preliminary product]	Determined annually
$Q_j^{Plant,t}$	Planned production quantity of the project of the subsidised product $j$ in year $t$ [ME product]	Defined for each year
$Q_j^{real}$	Realised production quantity of the project of the subsidised product $j$ [ME product]	Determined annually
$Q_j^{real}$	Specific input quantity of the preliminary product in relation to the conveyed product in the funding [ME preliminary product/ME product].	Determined annually
$e_{Ref}^{Plant,t}$	Specific greenhouse gas emissions of the reference system in the plan [t CO <sub>2</sub> -eq./ME preliminary product]	Defined for each year
$e_{Q_j}^{Ref}$	Product emissions that are additionally generated during the manufacture of the subsidised products, downstream or in parallel to those of the reference system for the upstream product, expressed specifically in relation to the production volume of	Constant over time

Element	Description	Temporal variability
	the subsidised product <i>j</i> [t CO <sub>2</sub> -eq./ME product]	
$e_{\Lambda}^{\text{Ref}}$	Greenhouse gas emissions of the reference system of the preliminary product [t CO <sub>2</sub> -eq./ME preliminary product]	Constant over time

Table 15

## 5. Further definitions and conversion from absolute to specific values

- 1) The realised specific greenhouse gas emissions of the project  $e^{\text{real}}$  are linked as follows to the absolute greenhouse gas emissions measured  $E^{\text{real}}$  and the realised production volume:

$$E^{\text{real}} = Q^{\text{real}} e^{\text{real}} \quad [32]$$

- 2) The planned specific greenhouse gas emissions of the project  $e^{\text{Plan},t}$  are compared as follows with the planned absolute greenhouse gas emissions  $E^{\text{Plan},t}$  and the planned production volume  $Q^{\text{Plan},t}$  are linked as follows:

$$E^{\text{Plan},t} = Q^{\text{Plan},t} e^{\text{Plan},t} \quad [33]$$

- 3) The planned absolute greenhouse gas emissions of the reference system are calculated as follows:

$$E_{\text{Ref}}^{\text{Plan},t} = e_{\text{Ref}} Q^{\text{Plan},t} \quad [34]$$

- 4) The realised greenhouse gas emissions of the reference system are calculated as follows:

$$E_{\text{Ref}}^{\text{real}} = e_{\text{Ref}} Q^{\text{real}} \quad [35]$$

- 5) The absolute reduction in greenhouse gas emissions determined annually is calculated as follows:

$$\Delta E^{\text{real}} = E_{\text{Ref}}^{\text{real}} - E^{\text{real}} \quad [36]$$

- 6) The absolute reduction in greenhouse gas emissions planned for each year is calculated as follows:

$$\Delta E^{\text{Plan},t} = E_{\text{Ref}}^{\text{Plan},t} - E^{\text{Plan},t} \quad [37]$$

- 7) The relative reduction in greenhouse gas emissions planned for each year is calculated as follows:

$$\mu^{\text{Plan},t} = \frac{\Delta E^{\text{Plan},t}}{E_{\text{Ref}}^{\text{Plan},t}} \quad [38]$$

- 8) The annual relative reduction in greenhouse gas emissions is calculated as follows:

$$\mu^{\text{real}} = \frac{\Delta E^{\text{real}}}{E_{\text{Ref}}^{\text{real}}} \quad [39]$$

- 9) The realised specific free assignment of the project is calculated as follows  $a^{\text{real}}$  is calculated as follows from the absolute free assignment actually realised  $A^{\text{real}}$  and the realised production volume:

$$a^{\text{real}} = \frac{A^{\text{real}}}{Q^{\text{real}}} \quad [40]$$

10) The specific free assignment of the reference system  $a_{\text{Ref}}$  is determined by the granting authority.

11) The planned specific energy carrier use of the dynamised energy carriers  $d_i^{\text{Plan,dyn,t}}$  is compared with the planned absolute use of the energy carriers  $D_i^{\text{Plan,dyn,t}}$  and the production volume  $Q^{\text{Plan,t}}$  as follows:

$$D_i^{\text{Plan,dyn,t}} = d_i^{\text{Plan,dyn,t}} Q^{\text{Plan,t}} \quad [41]$$

12) The planned specific energy carrier use of the non-dynamised energy carriers  $d_i^{\text{Plan,ndyn,t}}$  is compared with the planned absolute use of the energy carriers  $D_i^{\text{Plan,ndyn,t}}$  and the production volume  $Q^{\text{Plan,t}}$  as follows:

$$D_i^{\text{Plan,ndyn,t}} = d_i^{\text{Plan,ndyn,t}} Q^{\text{Plan,t}} \quad [42]$$

13) The absolute planned energy carrier use of the reference system for energy carrier  $i$  is calculated as follows:

$$D_i^{\text{Ref,t}} = d_i^{\text{Ref}} Q^{\text{Plan,t}} \quad [43]$$

14) The project's net use for non-dynamised energy carriers  $i$  in the project is calculated as follows:

$$D_i^{\text{Plan,ndyn,netto,t}} = \max(D_i^{\text{Plan,ndyn,t}} - D_i^{\text{Ref,t}}, 0) \quad [44]$$

15) The use of the energy carrier  $i$  in the reference system, reduced to the amount that is greater than the use of the same energy carrier in the project, is defined as follows:

$$D_i^{\text{Ref,netto,t}} = \max(D_i^{\text{Ref,t}} - D_i^{\text{Plan,ndyn,t}}, 0) \quad [45]$$

16) The absolute use of the energy carrier  $i$  in the reference system, which is used in the dynamisation, is calculated as follows:

$$D_i^{\text{Ref,dyn,t}} = D_i^{\text{Ref,netto,t}} \left( 1 - \frac{\sum_i D_i^{\text{Plan,ndyn,netto,t}}}{\sum_i D_i^{\text{Ref,netto,t}}} \right) \quad [46]$$

If  $D_i^{\text{Ref,dyn,t}}$  becomes less than zero, the value is set to zero. If the granting authority stipulates that an energy carrier in the reference system is not affected by this rule, the following applies:

$$D_i^{\text{Ref,dyn,t}} = D_i^{\text{Ref,t}} \quad [47]$$

17) The total energetic use of a project is calculated as follows:

$$D^{\text{Plan,gesamt,t}} = \sum_i D_i^{\text{Plan,dyn,t}} + \sum_i D_i^{\text{Plan,ndyn,t}} \quad [48]$$

18) The specific total energetic use of a project is calculated as follows:

$$d^{\text{Plan,gesamt,t}} = \sum_i d_i^{\text{Plan,dyn,t}} + \sum_i d_i^{\text{Plan,ndyn,t}} \quad [49]$$

19) The relative share of a dynamised energy carrier in the total energetic use is calculated as follows:

$$\delta_i^{\text{Plan,dyn,t}} = \frac{D_i^{\text{Plan,dyn,t}}}{D^{\text{Plan,gesamt,t}}} = \frac{d_i^{\text{Plan,dyn,t}}}{d^{\text{Plan,gesamt,t}}} \quad [50]$$

20) The relative share of a non-dynamised energy carrier in the total energetic use is calculated as follows:

$$\delta_i^{\text{Plan,ndyn,t}} = \frac{D_i^{\text{Plan,ndyn,t}}}{D^{\text{Plan,gesamt,t}}} = \frac{d_i^{\text{Plan,ndyn,t}}}{d^{\text{Plan,gesamt,t}}} \quad [51]$$

21) Taking into account the absolute reduction in greenhouse gas emissions and the absolute planned energy carrier use, the payout amount in the event that only energy carriers from the reference system are dynamised can be shown as follows:

$$\begin{aligned} Z_{\text{KSV}} &= p_{\text{KSV}}^{\text{Basis}} \Delta E^{\text{real}} \\ &- \sum_i \beta_i^{\text{Ref}} D_i^{\text{Ref,t}} (p_i^{\text{real}} - p_i^{\text{Basis}}) \frac{\Delta E^{\text{real}}}{\Delta E^{\text{Plan,t}}} \\ &- \left(1 - \frac{Q^{\text{real}} a_{\text{Ref}} - A^{\text{real}}}{\Delta E^{\text{real}}}\right) p_{\text{EUA}}^{\text{real}} \Delta E^{\text{real}} \\ &- R_{\text{nKSV}} - R_{\text{GP}} - \Delta F_{\text{Ely}} \end{aligned} \quad [52]$$

If the realised absolute greenhouse gas emission reduction  $\Delta E^{\text{real}} = \Delta e^{\text{real}} Q^{\text{real}}$  exceeds the planned absolute greenhouse gas emission reduction  $\Delta E^{\text{Plan,t}} = \Delta e^{\text{Plan,t}} Q^{\text{Plan,t}}$  by more than 30 % ( $\Delta E^{\text{real}} > 1,3 \Delta E^{\text{Plan,t}}$ ), the following applies:

$$\begin{aligned} Z_{\text{KSV}} &= p_{\text{KSV}}^{\text{Basis}} 1,3 \Delta E^{\text{Plan,t}} \\ &- \sum_i \beta_i^{\text{Ref}} D_i^{\text{Ref,t}} (p_i^{\text{real}} - p_i^{\text{Basis}}) 1,3 \\ &- \left(1 - \frac{Q^{\text{real}} a_{\text{Ref}} - A^{\text{real}}}{\Delta E^{\text{real}}}\right) p_{\text{EUA}}^{\text{real}} 1,3 \Delta E^{\text{Plan,t}} \\ &- R_{\text{nKSV}} - R_{\text{GP}} - \Delta F_{\text{Ely}} \end{aligned} \quad [53]$$

22) Taking into account the absolute reduction in greenhouse gas emissions and the absolute planned energy carrier use, the payout amount in the event that the project's energy carriers are dynamised can be presented as follows:

$$\begin{aligned} Z_{\text{KSV}} &= p_{\text{KSV}}^{\text{Basis}} \Delta E^{\text{real}} + \Delta M_{\text{KSV}}^{\text{Plan,t}} \Delta E^{\text{real}} \\ &+ \left( \sum_i \beta_i^{\text{Vorhaben}} D_i^{\text{Plan,dyn,t}} (p_i^{\text{real}} - p_i^{\text{Basis}}) - \sum_i \beta_i^{\text{Ref}} D_i^{\text{Ref,dyn,t}} (p_i^{\text{real}} - p_i^{\text{Basis}}) \right) \frac{\Delta E^{\text{real}}}{\Delta E^{\text{Plan,t}}} \\ &- \left(1 - \frac{Q^{\text{real}} a_{\text{Ref}} - A^{\text{real}}}{\Delta E^{\text{real}}}\right) p_{\text{EUA}}^{\text{real}} \Delta E^{\text{real}} \\ &- R_{\text{nKSV}} - R_{\text{GP}} - \Delta F_{\text{Ely}} \end{aligned} \quad [54]$$

The following applies



$$\Delta M_{KSV}^{Plan,t} = p_{KSV}^{Basis} \left( \frac{\Delta E^{Plan,mittel,t}}{\Delta E^{Plan,t}} - 1 \right) + \frac{1}{\Delta E^{Plan,t}} \sum_i p_i^{Basis} \left( D_i^{Plan,dyn,t} - D_i^{Plan,dyn,mittel,t} \right) \quad [55]$$

with

$$D_i^{Plan,dyn,mittel,t} = d_i^{Plan,dyn,mittel} Q^{Plan,t} = \frac{Q^{Plan,t}}{\sum_t Q^{Plan,t}} \sum_t D_i^{Plan,dyn,t} \quad [56]$$

and

$$\Delta E^{Plan,mittel,t} = \Delta e^{Plan,mittel} Q^{Plan,t} = \frac{Q^{Plan,t}}{\sum_t Q^{Plan,t}} \sum_t \Delta E^{Plan,t} \quad [57]$$

If the realised absolute greenhouse gas emission reduction  $\Delta E^{real} = \Delta e^{real} Q^{real}$  exceeds the planned absolute greenhouse gas emission reduction  $\Delta E^{Plan,t} = \Delta e^{Plan,t} Q^{Plan,t}$  by more than 30 % ( $\Delta E^{real} > 1,3\Delta E^{Plan,t}$ ), the following applies:

$$\begin{aligned} Z_{KSV} &= p_{KSV}^{Basis} 1,3\Delta E^{Plan,t} + \Delta M_{KSV}^{Plan,t} 1,3\Delta E^{Plan,t} \\ &+ \left( \sum_i \beta_i^{Vorhaben} D_i^{Plan,dyn,t} (p_i^{real} - p_i^{Basis}) - \sum_i \beta_i^{Ref} D_i^{Ref,dyn,t} (p_i^{real} - p_i^{Basis}) \right) 1,3 \\ &- \left( 1 - \frac{Q^{real}_{aRef} - A^{real}}{\Delta E^{real}} \right) p_{EUA}^{real} 1,3\Delta E^{Plan,t} \\ &- R_{nKSV} - R_{GP} - \Delta F_{Ely} \end{aligned} \quad [58]$$

Element	Description	Temporal variability
$E^{real}$	Realised greenhouse gas emissions of the project in year t [t CO <sub>2</sub> -eq.]	Determined annually
$E^{Plan,t}$	Planned greenhouse gas emissions of the project in year t [t CO <sub>2</sub> -eq.]	Defined for each year
$E_{Ref}^{Plan,t}$	Planned greenhouse gas emissions of the reference system in year t [t CO <sub>2</sub> -eq.]	Defined for each year
$E_{Ref}^{real}$	Realised greenhouse gas emissions of the reference system [t CO <sub>2</sub> -eq.]	Determined annually
$\mu^{Plan,t}$	Planned relative greenhouse gas emission reduction of the project in year t	Defined for each year

Element	Description	Temporal variability
$\mu^{\text{real}}$	Realised relative greenhouse gas emission reduction of the project]	Determined annually
$A^{\text{real}}$	Realised free assignments of the project [t CO <sub>2</sub> -eq.]	Determined annually
$D_i^{\text{Plan,dyn,t}}$	Use of the dynamised energy carrier i in year t [MWh]	Defined for each year
$D_i^{\text{Plan,ndyn,t}}$	Use of the non-dynamised energy carrier i in year t [MWh]	Defined for each year
$D_i^{\text{Plan,ndyn,netto,t}}$	Net use of the non-dynamised energy carrier i in the project in year t [MWh]	Defined for each year
$D_i^{\text{Ref,t}}$	Use of the energy carrier i in the reference system in year t [MWh]	Defined for each year
$D_i^{\text{Ref,netto,t}}$	Net use of the energy carrier i in the reference system in year t [MWh]	Defined for each year
$D_i^{\text{Ref,dyn,t}}$	funding the energy carrier i in the reference system in year t, adjusted for the use of the project [MWh]	Defined for each year
$D^{\text{Plan,gesamt,t}}$	Planned total energetic use of the project in year t [MWh]	Defined for each year
$d^{\text{Plan,gesamt,t}}$	Specific planned total energetic use of the project in year t [MWh/ME product]	Defined for each year
$\delta_i^{\text{Plan,dyn,t}}$	Planned relative share of the dynamised energy carrier i in the total energetic use in year t	Defined for each year
$\delta_i^{\text{Plan,ndyn,t}}$	Planned relative share of non-dynamised energy carrier i in total energetic use in year t	Defined for each year
$\Delta M_{\text{KSV}}^{\text{Plan,t}}$	Adjustment term of the base contract price to the annual energy carrier use to be applied when using absolute values [EUR/t CO <sub>2</sub> -eq.].	Defined for each year

Element	Description	Temporal variability
$D_i^{\text{Plan,dyn,mittel,t}}$	Average planned absolute use of the dynamised energy carrier $i$ in the project, applied for year $t$ [MWh]	Defined for each year
$\Delta E^{\text{Plan,mittel,t}}$	Average planned absolute greenhouse gas emission reduction of the project, applied for year $t$ [t CO <sub>2</sub> -eq.]	Defined for each year

Table 16

## Appendix 2 Assessment

- 1) The bids will be assessed on the basis of the criterion of funding cost efficiency. The criterion of funding cost efficiency is based on the calculation of specific funding costs:

$$F = p_{KSV}^{Basis} + \frac{S_0 + \sum_{t=1} \frac{S_t}{(1+\epsilon)^t}}{\sum_{t=1} \frac{\Delta E^{Plan,t}}{(1+\epsilon)^t}} \quad [59]$$

The specific funding costs are therefore calculated as the sum of the base contract price and the specific costs of other subsidies that have already been approved at the time of bidding.

The specific costs of other funding are calculated from the other funding that is or was paid out or otherwise granted before the planned operational start ( $S_0$ ), and the discounted sum of the monetary amounts or – in the case of other funding granted in any other way – the monetary value of the other funding paid or otherwise granted in the respective years from the planned operational start ( $t$ ) are paid out or otherwise granted ( $S_t$ ), taking into account the exceptions under Number 8.3(f)(iii). This sum is set in relation to the discounted sum of the greenhouse gas emissions saved.

Element	Description
F	Specific funding costs of the project [EUR/t CO <sub>2</sub> -eq.]
$S_0$	Sum of other funding already approved at the time of bidding that is or was paid out or otherwise granted before the planned operational start of works [EUR]
$S_t$	Sum of other funding already approved at the time of bidding that will be paid out or otherwise granted in year $t$ after the planned operational start of works [EUR]
$\epsilon$	Interest rate to be applied in accordance with the funding call by the granting authority

Table 17

- 2) The points for the criterion of funding cost efficiency are then calculated from the specific funding costs standardized by the maximum price ( $H_I$ ) (valid for the respective bid and the specific funding costs standardised by the maximum price  $H_{max}$  in the respective bidding procedure. The weighted average is calculated from the two components. The weighting is 0.5 on both sides, but can be adjusted by the granting authority in the funding call. The score is then calculated as follows:

$$P_F = \gamma \left(1 - \frac{F}{H_I}\right) + (1 - \gamma) \left(1 - \frac{F}{H_{max}}\right) \quad [60]$$

Element	Description
$P_F$	Points from the criterion of funding cost efficiency
$\Gamma$	Weighting factor, set at 0.5 or otherwise by the granting authority
$H_I$	Maximum price relevant for the bid [EUR/t CO <sub>2</sub> -eq.]

Maximum price in the funding call [EUR/t CO <sub>2</sub> -eq.]
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*Table 18*

- 3) The points awarded for the criterion of production cost efficiency form the basis for evaluating the bids.

### Appendix 3 Projects with multiple reference systems

The following explains the requirements to be observed in a bidding procedure and for determining the amount of the funding and surplus payments and the maximum annual funding amount for a project that relates to several reference systems.

#### 1. General provisions

- 1) Even if a project relates to several reference systems (1 to n), only one base contract price is to be offered.
- 2) A general averaging factor is defined as follows, which is used when project variables cannot be defined for each reference system.

$$u_g = \frac{e_{\text{Ref},g} \sum_t Q_g^{\text{Plan},t}}{\sum_{g=1}^n e_{\text{Ref},g} \sum_t Q_g^{\text{Plan},t}} \quad [61]$$

The averaging factor describes the share of greenhouse gas emissions in the reference system of the production volume of a project that can be allocated to a reference system in the total greenhouse gas emissions of a project in the reference systems, totalled over the term of the Carbon Contract for Difference Carbon Contract for Difference. It thus represents the share of the possible greenhouse gas emission reduction for a specific product in the total possible greenhouse gas emission reduction of the project.

- 3) The following relationship applies to the planned greenhouse gas emissions of the project, although this assignment to the individual products cannot always be determined and the following equation does not apply. The planned absolute greenhouse gas emissions of the project are determined in total for the project.

$$E^{\text{Plan},t} = \sum_g E_g^{\text{Plan},t} = \sum_g Q_g^{\text{Plan},t} e_g^{\text{Plan},t} \quad [62]$$

- 4) The following relationship applies to the realised greenhouse gas emissions of the project, although this assignment to the individual products cannot always be determined and the following equation does not apply. The realised greenhouse gas emissions are then calculated as a total for the entire project.

$$E^{\text{real}} = \sum_g E_g^{\text{real}} = \sum_g Q_g^{\text{real}} e_g^{\text{real}} \quad [63]$$

- 5) The following applies to the planned greenhouse gas emissions of the reference system:

$$E_{\text{Ref}}^{\text{Plan},t} = \sum_g E_{\text{Ref},g}^{\text{Plan},t} = \sum_g Q_g^{\text{Plan},t} e_{\text{Ref},g} \quad [64]$$

- 6) The following applies to the realised greenhouse gas emissions of the reference system:

$$E_{\text{Ref}}^{\text{real}} = \sum_g E_{\text{Ref},g}^{\text{real}} = \sum_g Q_g^{\text{real}} e_{\text{Ref},g} \quad [65]$$

- 7) The following relationship applies to the planned absolute use of the dynamised energy carriers i in the project  $D_i^{\text{Plan,dyn,t}} = \sum_g D_{i,g}^{\text{Plan,dyn,t}} = \sum_g Q_g^{\text{Plan,t}} d_{i,g}^{\text{Plan,dyn,t}}$ , although this assignment to the individual products cannot always be determined and the following equation does not then apply.

$$D_i^{\text{Plan,dyn,t}} = \sum_g D_{i,g}^{\text{Plan,dyn,t}} = \sum_g Q_g^{\text{Plan,t}} d_{i,g}^{\text{Plan,dyn,t}} \quad [66]$$

- 8) The following relationship applies to the planned absolute use of the non-dynamised energy carrier i in the project, whereby this assignment to the individual products cannot always be determined and the following equation does not apply.

$$D_i^{\text{Plan,ndyn,t}} = \sum_g D_{i,g}^{\text{Plan,ndyn,t}} = \sum_g Q_g^{\text{Plan,t}} d_{i,g}^{\text{Plan,ndyn,t}} \quad [67]$$

- 9) The following applies to the planned absolute energy carrier use of the reference system:

$$D_i^{\text{Ref,t}} = \sum_g d_{i,g}^{\text{Ref}} Q_g^{\text{Plan,t}} \quad [68]$$

- 10) The following applies to the average absolute energy carrier utilisation of a dynamised energy carrier, applied to one year:

$$D_i^{\text{Plan,dyn,mittel,t}} = \sum_g d_{i,g}^{\text{Plan,dyn,mittel}} Q_g^{\text{Plan,t}} \quad [69]$$

For  $d_{i,g}^{\text{Plan,dyn,mittel}}$  applies:

$$d_{i,g}^{\text{Plan,dyn,mittel}} = \frac{\sum_t Q_g^{\text{Plan,t}} d_{i,g}^{\text{Plan,dyn,t}}}{\sum_t Q_g^{\text{Plan,t}}} \quad [70]$$

If it is not possible for technical reasons to specify  $d_{i,g}^{\text{Plan,dyn,t}}$ , the following applies:

$$d_{i,g}^{\text{Plan,dyn,mittel}} = \frac{u_g \sum_t D_i^{\text{Plan,dyn,t}}}{\sum_t Q_g^{\text{Plan,t}}} \quad [71]$$

- 11) The following applies to the average absolute reduction in greenhouse gas emissions, applied to one year:

$$\Delta E^{\text{Plan,mittel,t}} = \sum_g \Delta e_g^{\text{Plan,mittel}} Q_g^{\text{Plan,t}} \quad [72]$$

For  $\Delta e_g^{\text{Plan,mittel}}$  applies:

$$\Delta e_g^{\text{Plan,mittel}} = \frac{\sum_t Q_g^{\text{Plan,t}} \Delta e_g^{\text{Plan,t}}}{\sum_t Q_g^{\text{Plan,t}}} \quad [73]$$

With the planned specific greenhouse gas emission reduction in relation to a reference system

$$\Delta e_g^{\text{Plan,t}} = e_{\text{Ref,g}} - e_g^{\text{Plan,t}} \quad [74]$$

If it is not possible for technical reasons  $\Delta e_g^{\text{Plan,t}}$  to specify, applies:

$$\Delta e_g^{\text{Plan,mittel}} = \frac{u_g \sum_t \Delta E_g^{\text{Plan,t}}}{\sum_t Q_g^{\text{Plan,t}}} \quad [75]$$

Element	Description	Temporal variability
$Q_g^{\text{Plan,t}}$	Planned production of product g of the project in year t [ME Product]	Defined for each year
$Q_g^{\text{real}}$	Realised production quantity of product g of the project in year t [ME Product]	Determined annually
$u_g$	Averaging factor when combining different reference systems	Constant over time
$e_{\text{Ref,g}}$	Specific greenhouse gas emissions of the reference system from product g [t CO <sub>2</sub> -eq./ME product]	Constant over time
$E_{\text{Ref,g}}^{\text{Plan,t}}$	Planned greenhouse gas emissions of the reference system from product g [t CO <sub>2</sub> -eq.]	Defined for each year
$E_{\text{Ref,g}}^{\text{real}}$	Realised greenhouse gas emissions of the reference system from product g [t CO <sub>2</sub> -eq.]	Determined annually
$E_g^{\text{Plan,t}}$	Planned greenhouse gas emissions of the project from the manufacture of product g in year t; not always determinable [t CO <sub>2</sub> -eq.]	Defined for each year
$E_g^{\text{real}}$	Realised greenhouse gas emissions of the project in the manufacture of product g; not always determinable [t CO <sub>2</sub> -eq.]	Determined annually
$e_g^{\text{Plan,t}}$	Planned specific greenhouse gas emissions of the project in the manufacture of product g in year t; not always determinable [t CO <sub>2</sub> -eq./ME product]	Defined for each year
$e_g^{\text{real}}$	Realised specific greenhouse gas emissions of the project in the manufacture of product g; not always determinable [t CO <sub>2</sub> -eq./ME product]	Determined annually
$\Delta e_g^{\text{real}}$	Realised specific greenhouse gas emission reduction of the input material in the manufacture of product g [t CO <sub>2</sub> -eq./ME product]	Determined annually
$\Delta e_g^{\text{Plan,mittel}}$	Average planned specific greenhouse gas emission reduction of the project in the manufacture of product g [t CO <sub>2</sub> -eq./ME product]	Constant over time
$\Delta e_g^{\text{Plan,t}}$	Planned specific greenhouse gas emission reduction of the project in year t in the manufacture of product g [t CO <sub>2</sub> -eq./ME product]	Defined for each year
$D_{i,g}^{\text{Plan,dyn,t}}$	Use of the dynamised energy carrier i in the project in year t for the production of the product g; not always determinable [MWh]	Defined for each year
$d_{i,g}^{\text{Plan,dyn,t}}$	Specific use of the dynamised energy carrier i in the project in year t to manufacture the product g; cannot always be determined [MWh/ME product]	Defined for each year



Element	Description	Temporal variability
$D_{i,g}^{\text{Plan,ndyn,t}}$	Use of the non-dynamised energy carrier i in the project in year t for the manufacture of product g; cannot always be determined [MWh]	Defined for each year
$d_{i,g}^{\text{Plan,ndyn,t}}$	Specific use of the non-dynamised energy carrier i in the project in year t for the manufacture of product g; not always determinable [MWh/ME product]	Defined for each year
$d_{i,g}^{\text{Ref}}$	Specific use of the energy carrier i in the reference system for product g [MWh/ME product]	Constant over time
$d_{i,g}^{\text{Plan,dyn,mittel}}$	Average planned specific use of the dynamised energy carrier i in the project to manufacture the product g [MWh/ME product]	Constant over time

Table 19

## 2. Payment and determination of the maximum annual amounts of funding

- 1) The payout is determined as set out in Number 1 and Number 2 of Appendix 1. The presentation using absolute values in accordance with Number 5 of Appendix 1 is used.
- 2) The provisions for determining the maximum annual amount of funding are retained by calculating the total across all reference systems. This results in the following relationship for the maximum annual amount of funding in each year t if only the energy carriers of the reference system are dynamised:

$$Z_{\text{KSV}}^{\text{max,t}} = (p_{\text{KSV}}^{\text{Basis}} - p_{\text{CO}_2}^{\text{sicher,t}}) \Delta E^{\text{Plan,t}} + \frac{\alpha}{1+\alpha} \sum_i \beta_i^{\text{Ref}} p_i^{\text{sicher,t}} D_i^{\text{Ref,dyn,t}} - R_{\text{nKSV}}^{\text{max}} \quad [76]$$

The following relationship applies if the project's energy carriers are also dynamised:

$$Z_{\text{KSV}}^{\text{max,t}} = (p_{\text{KSV}}^{\text{Basis}} - p_{\text{CO}_2}^{\text{sicher,t}}) \Delta E^{\text{Plan,t}} + \Delta M_{\text{KSV}}^{\text{Plan,t}} \Delta E^{\text{Plan,t}} + \alpha \left( \sum_i \beta_i^{\text{Vorhaben}} p_i^{\text{sicher,t}} D_i^{\text{Plan,dyn,t}} + \frac{1}{1+\alpha} \sum_i \beta_i^{\text{Ref}} p_i^{\text{sicher,t}} D_i^{\text{Ref,dyn,t}} \right) - R_{\text{nKSV}}^{\text{max}} \quad [77]$$

- 3) The other provisions in Appendix 1 shall apply accordingly.

## 3. Valuation

- 1) The valid maximum price for the project is determined from the weighted average of the maximum prices of all products as follows.

$$H_I = \sum_{g=1}^n u_g H_g \quad [78]$$

Element	Description	Temporal variability
$H_g$	Maximum price of product g relevant for the bid [EUR/t CO <sub>2</sub> -eq.]	Constant over time

*Table 20*

2) In all other respects, the further requirements are based on Appendix 2, which applies accordingly.