

# »»» Paris-compatible sector guidelines of KfW Group

## 1. Paris-compatible sector guidelines of KfW Group

The following sector guidelines aim at supporting the global transformation process towards greenhouse gas neutrality. They apply to KfW Group's new financing activities in the sectors addressed on the following pages and thereby define concrete requirements for the respective investments' climate-friendliness.

The sector guidelines involve minimum requirements that are aligned with the Paris Climate Agreement and are gradually incorporated into KfW's established financing modalities.

For KfW Group's new financing activities, the sector guidelines apply from the date they enter into force. In KfW's domestic promotional business the respective programme's specific requirements (e.g. as defined in the programme's information sheet) remain decisive. These requirements will gradually be reviewed for compatibility with the sector guidelines and, if necessary, will be adapted accordingly (particularly when introducing new programmes or extending existing programmes). Based on superior considerations, Paris-incompatible programmes can be commissioned by the Federal Government of Germany.

Detailed information regarding the science-based derivation of the Paris-compatible sector guidelines will be published in a background paper.<sup>1</sup>

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<sup>1</sup> [Link: Background Paper on the Paris-aligned sector guidelines of KfW Group](#)

## 2. Requirements on greenhouse gas intensive sectors

### 2.1 Shipping

For new financing activities in the shipping sector (NACE 50.1 und 50.2), the Paris-compatible sector guideline defines individual efficiency requirements based on the Energy Efficiency Design Index (EEDI) for ship types and sizes. The energy efficiency requirements are aligned with the efficiency requirements defined in the International Maritime Organisation's (IMO's) GHG-Strategy reduction targets (-40%/-70% relative by 2030/2050; -50% absolute CO<sub>2</sub>-emissions by 2050).

Financing can be provided if the reduction factor, specified by ship type in the table below in relation to the reference EEDI, is adhered to at the date of order placement. The EEDI is calculated in accordance with the IMO-Regulation (i.a. Resolution MEPC.203(62)).

#### Reduction factor (in percent) for the EEDI in relation to the reference-EEDI

Ship Type	Size	Reduction factor 01/01/2013 – 31/12/2014	Reduction factor 01/01/2015 – 31/12/2019	Reduction factor 01/01/2020 – 31/12/2021	Reduction factor 01/01/2022 – 31/12/2029
Bulk carrier	20,000 DWT and above	0	10	20	30
	10,000 - 20,000 DWT	n/a	0 – 10*	0 – 20*	0 – 30*
Gas carrier	10,000 DWT and above	0	10	20	30
	2,000 - 10,000 DWT	n/a	0 – 10*	0 – 20*	0 – 30*
Tanker	20,000 DWT and above	0	10	20	30
	4,000 - 20,000 DWT	n/a	0 – 10*	0 – 20*	0 – 30*
Container ship	200,000 DWT and above	0	10	20	50
	120,000 - 200,000 DWT	0	10	20	45
	80,000 - 120,000 DWT	0	10	20	40
	40,000 - 80,000 DWT	0	10	20	35
	15,000 - 40,000 DWT	0	10	20	30
	10,000 - 15,000 DWT	n/a	0 – 10*	0 – 20*	0 – 30*
General cargo ships	15,000 DWT and above	0	10	15	30
	3,000 - 15,000 DWT	n/a	0 – 10*	0 – 15*	0 – 30*
Refrigerated cargo carrier	5,000 DWT and above	0	10	15	30
	3,000 - 5,000 DWT	n/a	0 – 10*	0 – 15*	0 – 30*
Combination carrier	20,000 DWT and above	0	10	20	30
	4,000 - 20,000 DWT	n/a	0 – 10*	0 – 20*	0 – 30*
LNG carrier***	10,000 DWT and above	n/a	10**	20	30
Ro-ro cargo ship (vehicle carrier)***	10,000 DWT and above	n/a	5**	15	30
Ro-ro cargo ship***	2,000 DWT and above	n/a	5**	20	30
	1,000 - 2,000 DWT	n/a	0 – 5*,**	0 – 20*	0 – 30*
Ro-ro passenger ship***	1000 DWT and above	n/a	5**	20	30
	250 - 1,000 DWT	n/a	0 – 5*,**	0 – 20*	0 – 30*
Cruise passenger ship (having non-conventional propulsion)***	85,000 GT and above	n/a	5**	20	30
	25,000 - 85,000 GT	n/a	0 – 5*,**	0 – 20*	0 – 30*

\*) Linear interpolation of the value based on the size of the ship. The small value applies to the smaller ship.

\*\*) Mandatory application has started for these ship types on 1<sup>st</sup> of September 2015.

\*\*\*) This is valid for cruise passenger ships with an unconventional propulsion, including diesel-electric propulsion, turbine propulsion and hybrid propulsion system.

**Scope of application:**

The following types of financing activities are Paris-compatibly steered by the sector guidelines and must adhere to the requirements stated in the table:

- New financing to purchase or lease new ships in the above listed “Ship Type” category (including structurally strengthened ship types, e.g. ice class with corresponding EEDI-deductions for the IMO-requirements).
- Retrofits (adjustments in the existing ship), provided that they prolong the ship’s technical lifetime, are treated like new ships (see scope of application for “new ship” and for “major conversion” according to resolution MEPC.203(62), ANNEX 19).

The following types of financing activities are not steered by the sector guidelines:

- New financing for ships that are not subjected to IMO-Regulations and therefore have not been issued with an International Energy Efficiency Certificate (IEEC with notice of the EEDI) are excluded from the sector guidelines for shipping.
- New financing for the purchase and lease of new ships that are not listed in the above mentioned “Ship Type” categories.
- Retrofits, which do not prolong the technical lifetime of the corresponding ship (e.g. exhaust gas purification).
- Financing of individual ship components.
- Corporate Financing and other financing activities where the specific technologies are non-delimitable (e.g. intermediary-financing via financial institutions).

## 2.2 Automotive sector

The Paris-compatible sector guideline for the automotive sector refers to production and research and development (R&D) of passenger cars and light commercial vehicles (< 3.5t) as well as suppliers and infrastructure (NACE Code 29.1, 29.2 and 29.3)<sup>2</sup>. With focus on propulsion technologies, the sector guideline differentiates as followed:

- (i) Transformative propulsion technologies directly contribute to the greenhouse gas neutrality target. These include battery electric vehicles (BEV) and fuel cell electric vehicles (FCEV), as well as plug-in hybrid electric vehicles (PHEV) until the end of 2024 (classified as transitional propulsion technology from 2025 on).
- (ii) Transitional propulsion technologies are relevant but of steadily decreasing importance in driving the transition towards greenhouse gas neutrality. These include internal combustion engines (ICE) and hybrid electric vehicles (HEV, i.e. full hybrids that enable purely electric driving, but whose batteries cannot be charged via the power grid). New financing of research and development (R&D) in transitional propulsion technologies (vehicle segment < 3.5t) is no longer committed.

The Paris-compatible sector guideline increases the proportion of KfW Group's financing activities in transformative propulsion technologies and limits the financing activities in transitional propulsion technologies. From 1<sup>st</sup> of July 2021 to 31<sup>st</sup> of December 2024, new financing activities for the mentioned propulsion technologies will be monitored and controlled by KfW Group to ensure that the transformative proportion of financing activities reaches at least 52 percent and the transitional proportion is limited to 48 percent.<sup>3</sup> KfW Group controls the quota for the transitional proportion of total financing volume, ensuring that it will be met.

### Scope of application:

The following types of financing activities are Paris-compatibly steered by the sector guidelines:

- New financing activities for propulsion-relevant parts of the automotive production (includes suppliers producing components for transformative or transitional technologies; limiting quota for transitional drive technologies).
- New financing activities for production factories and for suppliers producing components for transformative or transitional technologies.
- Research and development in the vehicle segment < 3.5t.

The following types of financing activities are not steered by the sector guidelines:

- New financing for purchase of vehicles or fleets (as well as leasing).
- Production, research and development in the vehicle segment > 3.5t.
- Process steps unrelated to propulsion technology, i.a. pressing plant, shell construction, axles, supplier of automotive parts that are not propulsion-related (i.a. floors, seats, bumpers, mirrors), enameling lines, assembly lines, tests and quality checks, deliveries.
- Corporate Financing and other financing activities where the specific technologies are non-delineatable (e.g. intermediary-financing via financial institutions).

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<sup>2</sup> As the Paris-compatible sector guideline's requirements are focused on the powertrain, NACE Code 29.2 is only relevant for steering in case of a factory financing activity where the powertrain cannot be delineated.

<sup>3</sup> In regards to the time period from 2025 to 2029, the proportion of transformative financing activities must be at least 67% of the financing volume, the proportion for transitional activities is therefore limited to 33%.

- Financing, unrelated to NACE Codes 29.1, 29.2 and 29.3, is not steered by the sector guideline for automotive (i.e. charging infrastructure, production of synthetic fuels and biofuels).

**Minimum requirements with a focus on the distribution of volumes for individual investments:**

Propulsion technologies	Commitments during period 1 01.07.2021-31.12.2024	Commitments during period 2 01.01.2025-31.12.2029
Transformative propulsion technologies  Promoting and challenging	<ul style="list-style-type: none"> <li>▪ Production plants for transformative propulsion technologies (BEV, FCEV, PHEV with &gt; 50km of purely electric driving) and their suppliers (B) and associated infrastructure (C)</li> <li>▪ Highly efficient internal combustion engines that are explicitly designed to achieve higher knock-resistance of carbon-neutral fuels (such as bioethanol or synthetic fuels with a carbon-neutral hydrogen base)</li> <li>▪ Battery production for passenger cars (no outdated technologies such as lead-acid/nickel-cadmium)</li> <li>▪ Sustainable investments in propulsion technologies according to the EU taxonomy (provisional requirements according to the EU taxonomy for sustainable economic activities from October 2020 (emission intensity max. 50g of CO<sub>2</sub>/km until 2025 and 0g of CO<sub>2</sub>/km from 2026)).</li> <li>▪ Research and development (R&amp;D) in transformative propulsion technologies (C)</li> </ul>	<ul style="list-style-type: none"> <li>▪ See previous period, but now minus plug-in hybrid electric vehicles (PHEV, classified as a transitional propulsion technology from 2025)</li> </ul>
Transitional propulsion technologies  Restrict	<ul style="list-style-type: none"> <li>▪ ≤ 48% of commitment volume for each business area going towards production plants for transitional propulsion technologies (ICE, HEV) and their suppliers (A, B, C). Among other things, this includes conventional internal combustion engines (ICE, even if designed for the addition of biodiesel/E10 petrol), gearbox plants for internal combustion engines, components for internal combustion engines (including spark plugs), valves, turbochargers, engine oils, coolers, generators and starters.</li> <li>▪ No research and development (R&amp;D) in transitional propulsion technologies (C)</li> </ul>	<ul style="list-style-type: none"> <li>▪ ≤ 33% of commitment volume for each business area going towards production plants for transitional propulsion technologies (ICE, HEV, PHEV) and their suppliers (A, B, C). Among other things, this includes conventional internal combustion engines (ICE, even if designed for the addition of biodiesel/E10 petrol), gearbox plants for internal combustion engines, components for internal combustion engines (including spark plugs), valves, turbochargers, engine oils, coolers, generators and starters.</li> <li>▪ No research and development (R&amp;D) in transitional propulsion technologies (C)</li> </ul>
Commitments towards GHG reduction measures in production can be financed in principle if they do not prolong the technical lifetime of transitional technologies. It may be assumed that the technical lifetime will not be extended if the measure relates to upgrades to existing facilities that will then continue to operate (i.e. not replacing an old plant with a new one). Such commitments are not considered when calculating the quota of transitional and transformative technologies.		

## 2.3 Iron and steel production

The Paris-compatible sector guideline for iron and steel production (NACE 24.10 as well as Coking plants – NACE 19.10) focuses primarily on the 'hot phase' of this sector. The 'hot phase' covers the actual production of iron and steel, i.e. the blast furnace, oxygen converter, sinter plants, pellet plants, coking plants, smelting reduction, direct reduction and electric arc furnaces. The guideline distinguishes between (i) transformative technologies, that directly contribute to greenhouse gas neutrality and (ii) transitional technologies, which are relevant for progress towards greenhouse gas neutrality but are of continuously declining importance. Therefore, the Paris-compatible sector guideline will increase the proportion of financing activities in transformative technologies and limit the financing activities in transitional technologies. Technologies not listed in the Paris-compatible sector guideline can also be classified as transitional, if they meet the high thresholds in regard to emissions (t CO<sub>2</sub>) per t steel (crude steel).

KfW Group controls the quota for the transitional proportion of total financing volume, ensuring that it will be met.



## 2.4 Building sector

The Paris-compatible sector guideline for the building sector is applicable for new construction, modernisation and the purchase of buildings located within the EU. It includes all building types that are heated or cooled according to their intended purpose (e.g. residential buildings, administrative buildings, schools and hospitals). The minimum requirements for buildings in Germany are defined according to the established KfW Efficiency House and Efficiency Building standards. For buildings located in the other EU countries, the sector guideline purposely offers several possibilities to meet the Paris-compatible minimum requirements and thus takes into consideration the heterogeneous climate conditions and national differences in building standards.

For buildings located in Germany, the following minimum requirements apply for financing activities in the time period from 1<sup>st</sup> September 2021 until 31<sup>st</sup> December 2029:

Purpose of financing activity	Minimum requirements
<b>New constructions</b>	At least KfW Efficiency House <sup>5</sup> and Efficiency Building standard <sup>6</sup> 55
<b>Purchase of buildings that since being built have not been occupied (upcoming first-time occupancy)</b>	
<b>Purchase of buildings that since being built have been occupied at least once</b>	At least KfW Efficiency House <sup>5</sup> and Efficiency Building standard <sup>6</sup> 100 (For modernisations dependent on the financed modernisation work) <sup>7</sup>
<b>Modernisation of buildings</b>	
<b>Individual measures</b>	Individual measures according to the following positive list: <ul style="list-style-type: none"><li>▪ Insulation of building envelope (incl. windows/doors)<sup>8</sup></li><li>▪ Ventilation (with heat recovery)</li><li>▪ Renewable electricity generation: Photovoltaics (also in connection with batteries), biomass/biogas combined heat and power plants</li><li>▪ Heating: electric heat pumps, solar thermal energy, natural gas heating incl. combined heat and power plants (optimization of existing devices), local and remote district heating, biomass in accordance with the requirements of the federal funding program for efficient buildings (BEG), see below</li><li>▪ All other individual measures in accordance with the technical minimum requirements of the "Bundesförderung für effiziente Gebäude" (BEG)<sup>9</sup>.</li></ul>

<sup>5</sup> Link:

<https://www.bundesanzeiger.de/pub/publication/ViyuABRC4rbb8sQWems/content/ViyuABRC4rb8sQWems/BAnz%20AT%2007.06.2021%20B3.pdf?inline#page=15>

<sup>6</sup> Link:

<https://www.bundesanzeiger.de/pub/publication/2fIQclFB3pM98KEQpfD/content/2fIQclFB3pM98KEQpfD/BAnz%20AT%2007.06.2021%20B4.pdf?inline#page=14>

<sup>7</sup> Buildings that do not fulfil the required Efficiency House or Efficiency Building standard at the time of purchase must be modernized according to contractual provisions, such that at least the applicable Efficiency House and Building Standard is achieved after modernization.

<sup>8</sup> Minimum requirements according to the Building Energy Act (GEG/ Gebäudeenergiegesetz), Annex 7 (point 2.a – 4).

<sup>9</sup> Link:

<https://www.bundesanzeiger.de/pub/publication/WvQ8k3f3hl7npi5nNo9/content/WvQ8k3f3hl7npi5nNo9/BAnz%20AT%2007.06.2021%20B2.pdf?inline%23page=19>



For buildings located within the EU but outside of Germany, the following minimum requirements apply for financing activities in the time period from 1<sup>st</sup> September 2021 until 31<sup>st</sup> December 2029:

Purpose of financing activity	Minimum requirements
<b>New constructions</b>	The building must at least: <ul style="list-style-type: none"> <li>▪ meet EPC-classification „B“ (energy certificate), or</li> <li>▪ meet the national requirements for “nearly zero-energy buildings” (NZEB)</li> </ul>
<b>Purchase of buildings that since being built have not been occupied (upcoming first-time occupancy)</b>	
<b>Purchase of buildings that since being built have been occupied at least once</b>	The building (where necessary after completion of the financed modernisation) must at least: <ul style="list-style-type: none"> <li>▪ meet EPC-classification “B” (energy certificate), or</li> <li>▪ be in accordance with the minimum standards for the implementation of the “Energy Performance of Buildings Directive” (EPBD), or</li> <li>▪ as a result of the financed modernisations prove to have saved at least 30 percent of non-renewable primary energy</li> </ul>
<b>Modernisation of buildings</b>	
<b>Individual measures</b>	See positive list for buildings located in Germany

#### **Scope of application:**

The following types of financing activities are Paris-compatibly steered by the sector guidelines:

- New constructions, modernisations and purchase of residential and non-residential buildings located within the EU, including financing activities for individual building parts (e.g. apartments and the expansion of existing buildings) or building technology (installation and setup of heating, cooling, ventilation and lighting technology as well as hot water supply).

The following types of financing activities are not steered by the sector guidelines:

- Buildings not located within the EU.
- Listed buildings<sup>10</sup>, industrial and production buildings, warehouse and shipping buildings, data centers as well as all building types that are not included in the scope of the German Building Energy Act (GEG §2 (2)) regardless of whether the location of the financed building is in Germany or other EU member states.
- Individual measures, as long as they are not relevant for the primary energy demand of a building, e.g. barrier-free modification of the interior.
- Financing activities for the operation of buildings or technical facilities for the production process in buildings.
- General corporate financing and financing activities that cannot be technologically delimited over financial intermediaries e.g. for home ownership companies and construction companies.

<sup>10</sup> Listed buildings include (a) buildings which, according to an official list or by law, are historical monuments, (b) buildings that are part of a monument ensemble and (c) buildings that are classified as “other particularly building fabric worthy of preservation” by official decision.

01.09.2021 – 31.12.2029

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<b>Germany</b>	<ul style="list-style-type: none"><li>• New building: <math>\leq</math> German Efficiency House/Building Standard 55</li><li>• Renovation: <math>\leq</math> German Efficiency House/Building Standard 100</li><li>• Particular measures according to the following list:<ul style="list-style-type: none"><li>- Thermal insulation of the building envelope (including windows/doors)</li><li>- Ventilation systems (with heat recovery)</li><li>- Renewable power generation: photovoltaics (also in connection with batteries), biomass / biogas combined heat and power plants</li></ul></li><li>• Heating:<ul style="list-style-type: none"><li>- Electric heat pumps, solar thermal, natural gas heating including cogeneration units (optimisation of existing units), local and district heating, biomass in accordance with the BEG list (see below)</li></ul></li><li>• All other particular measures in accordance with the BEG list 2021 (minimum technical requirements of the "Federal funding for efficient buildings" programme)</li></ul>
<b>EU without Germany</b>	<ul style="list-style-type: none"><li>• New building: The building must at least<ul style="list-style-type: none"><li>- meet EPC classification "B" (energy certificate) or</li><li>- meet the national requirements for "nearly zero-energy buildings" (NZEB).</li></ul></li><li>• Renovation: After the renovation, the building must at least<ul style="list-style-type: none"><li>- meet EPC classification "B" (energy certificate) or</li><li>- meet the minimum standards for the implementation of the "Energy Performance of Buildings Directive" (EPBD) or</li><li>- save <math>\geq 30\%</math> of the non-renewable primary energy as a result of the financed renovation.</li></ul></li><li>• Particular measures in accordance with the list for Germany (see above).</li></ul>
<b>World without EU</b>	<ul style="list-style-type: none"><li>• Initially no systematic Paris-aligned approach for building finance outside Europe, because the situations in individual countries are very heterogeneous, there are no international standards for Paris-alignment in the building sector and KfW's commitment volume for the building sector outside Europe is generally rather low.</li></ul>

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The acquisition of buildings that have not yet been occupied since construction (first occupancy upcoming) is subject to the same requirements as a new building.

The acquisition of buildings that have already been occupied at least once since construction is subject to the same requirements as a renovation.

## 2.5 Power generation sector

The Paris-compatible sector guideline for power generation supports the expansion of renewable energies which can be financed as transformative technologies (e.g. wind, photovoltaic, solar thermal power plant, geothermal power plants, hydropower and tidal power plants, power generation with sustainable biomass<sup>11</sup>,...) without any limitations. At the same time, the sector guideline also considers the role of natural gas power plants in successfully shaping the transition phase towards greenhouse gas neutrality. In accordance with the Paris-compatible sector guideline for the power generation sector, KfW Group does not make any commitments for coal-fired power plants or nuclear power plants (neither new construction nor modernization).

Thereby, KfW Group consistently relies on the best locally available and usable technologies and secures Paris-compatibility of its new financing activities by relying on a quota control: Based on the annual commitment volume for natural gas power plants and renewable energies, the annual commitment volume for natural gas power plants (new construction and modernization) is limited to one third. This quota applies for the period up to the end of 2029 and in individual cases may also include oil and diesel power plants.

The quota is controlled by KfW Group. The applied method is made transparent by KfW Group in its background paper<sup>12</sup> on the Paris-compatible sector guidelines.

### **Scope of application:**

The following types of financing activities are Paris-compatibly steered by the sector guidelines:

- The sector guideline applies to KfW Group's global commitments to the power generation sector, insofar as the power plants financed in the process are designed to feed into the interconnected power grid for public power supply.

The following types of financing activities are not steered by the sector guidelines:

- Interconnected or electricity grids and electricity storage facilities do not fall within the scope of the sector guideline.
- Operational power plants for priority own use that do not feed into the interconnected or electricity grid for public electricity supply, or only feed into the grid on a subordinate basis, are not controlled by the sector guideline.
- Financing without a technologically definable object of financing is not controlled by the sector guideline. This also applies to financing to financial intermediaries if the object of financing cannot be technologically defined.
- General corporate financing for power generation companies is not controlled by the sector guideline.

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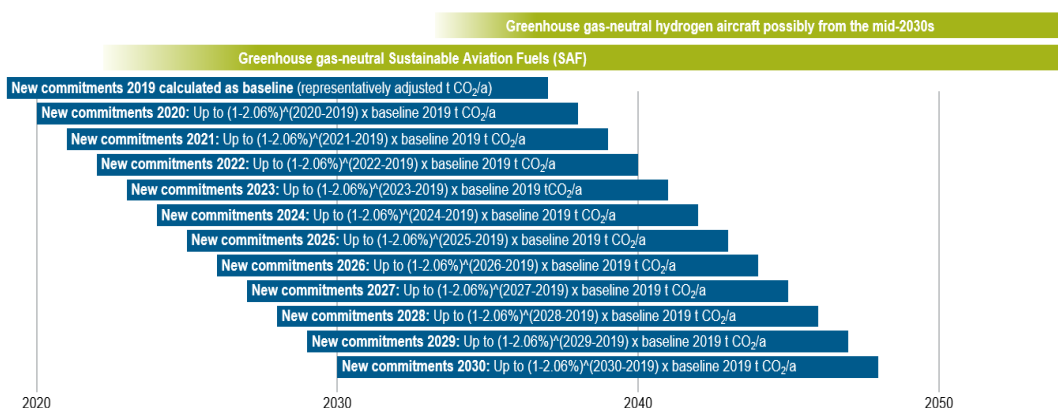
<sup>11</sup> Sustainability certification is required for the production of electricity from biomass fuels in installations with a total rated thermal input  $\geq 20$  MW and in the case of gaseous biomass fuels with a total rated thermal input  $\geq 2$  MW.

<sup>12</sup> Link: <https://www.kfw.de/nachhaltigkeit/Dokumente/KEa4/Hintergrundpapier-Sektorleitlinie-eng.pdf>

## 2.6 Aviation sector

The Paris-compatible sector guidelines for aviation applies to the financing of aircrafts for the transport of humans and goods (NACE-Codes 51.1 and 51.21) as well as for financing to aircraft lessors (NACE-Code 77.35). KfW Group continuously relies on the best technologies available. As for the aviation sector, there are currently no marketable transformative technologies available to promote a greenhouse gas neutral future, the sector guideline ensures Paris-compatibility by systematically limiting emissions of KfW Group's financed aircrafts. In accordance with the underlying decarbonization path published by the International Energy Agency (IEA) it defines a CO<sub>2</sub>-Budget for new financing activities in the aviation sector, which year for year is reduced by 2,06 percent compared to the previous year.

KfW Group steers new financing activities within its CO<sub>2</sub>-Budget. The applied method is made transparent by KfW Group in its background paper<sup>13</sup> on Paris-compatible sector guidelines.



<sup>13</sup> Link: <https://www.kfw.de/nachhaltigkeit/Dokumente/KEa4/Hintergrundpapier-Sektorleitlinie-eng.pdf>

## Appendix: Classification of economic activities

Sector Guideline	NACE Code	Economic activity
Shipping	50.1	Sea and coastal passenger water transport
	50.2	Sea and coastal freight water transport
Automotive	29.1	Manufacture of motor vehicles
	29.2	Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers
	29.3	Manufacture of parts and accessories for motor vehicles
Iron- and steel production	19.10	Manufacture of coke oven products
	24.10	Manufacture of basic iron and steel and of ferro-alloys
Building	n/a	Management does not depend on NACE-Codes
Power generation	35.11	Production of electricity
Aviation	51.1	Passenger air transport
	51.21	Freight air transport
	77.35	Renting and leasing of air transport equipment

Herausgeber / Urheber  
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