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## Tamron Co., Ltd.

		Companies' approach	
1	Background and purpose of accounting	<ul> <li>To measure CO<sub>2</sub> emissions from our corporate activities and reinforce our efforts to reduce our environmental impact.</li> </ul>	
2	Utilization of accounting results	<ul> <li>The accounting results are utilized to:</li> <li>respond to external environmental surveys as well as communicate our environmental commitments to stakeholders by reporting the accounting results through CSR reports; and</li> <li>identify categories with high environmental impact for which we need to focus our efforts to reduce emissions.</li> </ul>	
3	Benefits of accounting	<ul> <li>The accounting enables us to:</li> <li>identify categories with high environmental impact and utilize these findings to take effective action to reduce our carbon footprint; and</li> <li>show our environmental commitments to stakeholders.</li> </ul>	
4	Internal system for accounting	Primary data are gathered from relevant divisions (Business Units, Administration Unit, Information System Office) and calculated by the ISO division.	

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## Tamron Co., Ltd.

		Companies' approach	
(5)	Efforts to reduce supply chain emissions	We will examine how we can reduce emissions from Category 1 (Purchased goods and services) and Category 4 (Transportation and delivery), which are found to account for a large part of the total emissions.	
6	Issues in supply chain emissions accounting	Issue in last fiscal year     To further improve the accuracy     (to improve the accuracy of the weight estimate of Category 4)	
7	Other		

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## Tamron Co., Ltd.

Catagory	Accounting methods    ※Accounting period : January 2018 - December 2018		
Category	Activity data	Emission factor	
Category 1: Purchased goods and services	Value of components, expendable supplies, services, etc. procured	• SC-DB (*1)	
Category 2: Capital goods	Value of capital investment	• SC-DB (*1)	
Category 3: Fuel and energy related activities not included in Scope 1 or 2	Amount of energy purchased by type (gasoline, heavy oil, electricity, kerosene, etc.)	● CFP-DB (*2)	
Category 4: Transportation and delivery (upstream)	Weight and distance transported (calculation is made based on scenarios established, using the ton- kilometer method)	• SC-DB (*1)	
Category 5: Waste generated in operations	Weight of waste disposed of by type	• SC-DB (*1)	
Category 6: Business travel	Transportation expenses paid for business travel	• SC-DB (*1)	
Category 7: Employee commuting	Transportation expenses paid for commuting	• SC-DB (*1)	
Category 8: Leased assets (upstream)	Floor area of buildings leased for offices	• SC-DB (*1)	
Category 9: Transportation and delivery (downstream)	● N/A	• –	
Category 10: Processing of sold products	● N/A	• –	
Category 11: Use of sold products	Electricity consumed by and number of products sold	• SC-DB (*1)	
Category 12: End-of-life treatment of sold products	Weight of each component of, and number of, products sold	• SC-DB (*1)	
Category 13: Leased assets (downstream)	● N/A	• -	
Category 14: Franchises	● N/A	• -	
Category 15: Investments	• N/A	• -	
Other	● N/A	• -	

<sup>\*1</sup> Emission Factor Database on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain Ver. 2.6

<sup>\*2</sup> CFP Communication Program Basic Database Ver. 1.01 (data in Japan)

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## **Supply chain emissions: Accounting results**

	Description	Share (%)
Category 1	Emissions from the extraction of resources and the manufacturing and transportation of all goods and services purchased or acquired	66.9%
Category 2	Emissions from the manufacturing and transportation of capital goods purchased or acquired	18.1%
Category 3	Upstream side emissions (resource extraction, production, and transportation) from fuel purchased and the generation process of electricity and heat purchased	1.1%
Category 4	Emissions from suppliers' distribution (transportation, cargo handling, and storage) of goods and services purchased	6.9%
Category 5	Emissions from disposal and processing by parties other than Tamron of waste generated from Tamron's business activities	1.6%
Category 6	Emissions from means of transportation used in the movement of employees of Tamron in operations such as business travel	0.2%
Category 7	Emissions from means of transportation used for commuting to factories or places of business by employees of Tamron	3.9%
Category 8	Emissions from the operation of warehouses and other assets leased by Tamron	0.0%
Category 11	Emissions from consumers' use of products and services sold	0.3%
Category 12	Emissions from the disposal and processing of products sold at the end of their life cycle and their containers and packaging	1.0%