

## Companies' approach

### □ Background and purpose of accounting

- NTT Group have been contributing to CO<sub>2</sub> emissions reduction in society by providing telecommunications services, which can reduce "resource usages" and "movements of people and goods", as NTT Group's main business. As a service provider, we also consider it important to reduce our CO<sub>2</sub> emissions generated by providing our services, including supply chain emissions.
- Within such telecommunications services as provided by us, the amount of CO<sub>2</sub> emissions from the manufacturing and use of telecommunication equipment installed in telecommunication buildings and telecommunication devices used by customers is likely to contribute a large percentage. Therefore, we have been implementing CO<sub>2</sub> emissions reduction measures along our supply chain, such as promoting the purchase of products with lower CO<sub>2</sub> emissions when they are made and when they are used.
- By accounting for our supply chain emissions, we aim to fully understand the scope of measures we will need for reductions, and to give sincere answers when stakeholders ask us to disclose such information.

### □ Utilization of accounting results

- We aim to promote planning and implementation of more effective reduction measures for supply chain emissions by identifying categories with high CO<sub>2</sub> emissions and by analyzing the causes of emissions in the applicable categories.
- We will be able to disclose information more completely by making our supply chain emissions public on our website, etc.

### □ Benefits of accounting

- By identifying categories with high levels of CO<sub>2</sub> emissions, we will be able to clarify the boundaries of measures and these priorities.
- By disclosing information on our supply chain emissions, we will be able to give more information to the requests of our stakeholders, and then our brand image related to the environment will be more and more improved.

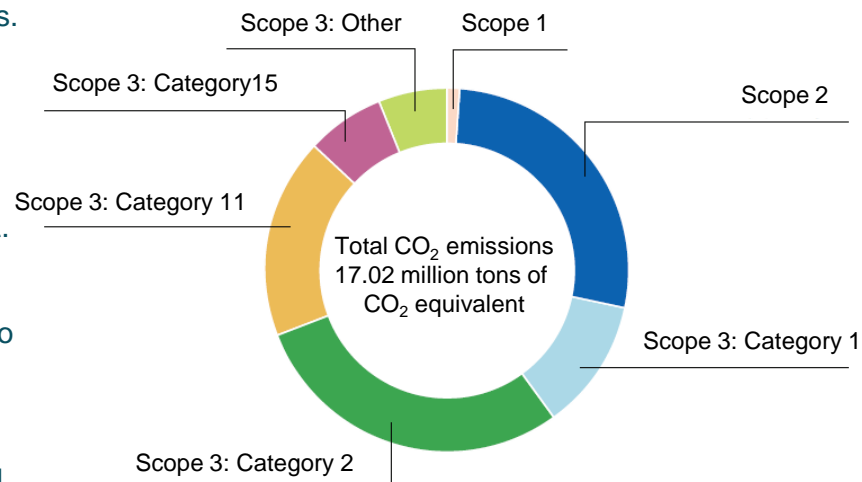
### □ Internal system for accounting

- NTT Environment Promotion Office has calculated the supply chain emissions of the entire NTT Group. Data used in the calculation was collected from the environment department assigned in the NTT Group companies and from related internal departments.
- We use two types of data for our Scope 3 emissions accounting. One is the data collected every year, such as the annual consumption of energy by type and the amount of waste discharged by material, and the other is the data disclosed by financial statements, such as the quantity and procurement amounts of telecommunication equipment both used in telecommunication buildings and sold to customers.
- Our calculations use original emission factors that are made from a wealth of data, such as LCA results of various telecommunications services, etc.

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### □ Efforts to reduce supply chain emissions

- Emissions of category 1, 2, 11 account for the majority of our supply chain emissions.
- We are continuing our efforts to promote the procurement of products with lower CO<sub>2</sub> emissions when manufactured and used. To make these efforts effective, we believe that a collaboration with our equipment suppliers is critically important.
- We will also continue to seek to procure products with high energy-saving effects and introduce energy-saving equipment to our customers.
- As shown in the results, Category 15 is relatively large, which is because it involves investments in power generating companies.



### □ Issues in supply chain emissions accounting

- Methodologies to validate our accounting results in terms of data accuracy and approaches to supply chain accounting will be necessary.
- Because the boundaries of supply chain emissions to be accounted for are extending over a wide range of category areas, a database of common emission factors to be widely used must be developed and improved.
- More accurate calculations are necessary in order to implement emissions reduction measures, and to this end we will need to collect more detailed and refined data, and the boundaries must be expanded.

### □ Other remarks

- Telecommunications services might bring about a transformation in various fields, as well as a reduction in the “consumption of materials and energy”, “work processes”, “movement of people” and “movement and storage of goods”, thereby controlling carbon emissions so as to contribute to reduced environmental load in society.
- At NTT Group, we are also committed to the “Green by ICT” action program, which is aimed at contributing to CO<sub>2</sub> emissions reduction in society as a whole through telecommunications services being provided by us.

Category	Accounting methods	
	Activity data	Emission factor
Category 1: Purchased goods and services	<ul style="list-style-type: none"> <li>Quantity and procurement amount of equipment sold to customers</li> </ul>	<ul style="list-style-type: none"> <li>Emission factor Database, Ver. 2.0</li> <li>Japanese Governmental CFP Pilot Project</li> <li>3EID</li> </ul>
Category 2: Capital goods	<ul style="list-style-type: none"> <li>Amount of money of telecommunications equipment procured</li> </ul>	<ul style="list-style-type: none"> <li>3EID</li> </ul>
Category 3: Fuel and energy related activities not included in Scope 1 or 2	<ul style="list-style-type: none"> <li>Annual consumption of energy for each type</li> </ul>	<ul style="list-style-type: none"> <li>Emission factor Database, Ver. 2.0</li> <li>CFP Basic Database, Ver. 1.01</li> </ul>
Category 4: Transportation and delivery (upstream)	<ul style="list-style-type: none"> <li>Quantity and procurement amount of equipment sold to customers</li> <li>Weight and distance in transportation that is subcontracted</li> </ul>	<ul style="list-style-type: none"> <li>Japanese Governmental CFP Pilot Project</li> <li>3EID</li> <li>Ministry of Land, Infrastructure and Transportation</li> </ul>
Category 5: Waste generated in operations	<ul style="list-style-type: none"> <li>Waste quantity by type</li> </ul>	<ul style="list-style-type: none"> <li>Emission factor Database, Ver. 2.0</li> </ul>
Category 6: Business travel	<ul style="list-style-type: none"> <li>Transportation expenses paid</li> </ul>	<ul style="list-style-type: none"> <li>Emission factor Database, Ver. 2.0</li> </ul>
Category 7: Employee commuting	<ul style="list-style-type: none"> <li>Transportation expenses paid</li> </ul>	<ul style="list-style-type: none"> <li>Emission factor Database, Ver. 2.0</li> </ul>
Category 8: Leased assets (upstream)	(excluded from calculation) Fuel and electricity used by leased assets are calculated in Scope 1 or 2.	
Category 9: Transportation and delivery (downstream)	(excluded from calculation) Mostly includes emissions from our own transportation and use in our own facilities (included in Scope 1 and 2) or from outsourced transportation (included in Category 4).	
Category 10: Processing of sold products	(excluded from calculation) NTT Group does not operate the processing of intermediate products as our main business.	
Category 11: Use of sold products	<ul style="list-style-type: none"> <li>Number of telecommunications subscriptions</li> <li>Quantity and procurement amount of equipment sold to customers</li> </ul>	<ul style="list-style-type: none"> <li>Emission factor Database, Ver. 2.0</li> <li>Emission factor calculated by NTT Group (*1)</li> </ul>
Category 12: End-of-life treatment of sold products	<ul style="list-style-type: none"> <li>Number of telecommunications subscriptions</li> <li>Quantity and procurement amount of equipment sold to customers</li> </ul>	<ul style="list-style-type: none"> <li>Emission factor Database, Ver. 2.0</li> <li>Emission factor calculated by NTT Group (*1)</li> </ul>
Category 13: Leased assets (downstream)	<ul style="list-style-type: none"> <li>Average operation availability of leased goods</li> </ul>	<ul style="list-style-type: none"> <li>Emission factor Database, Ver. 2.0</li> </ul>
Category 14: Franchises	<ul style="list-style-type: none"> <li>Total floor area of sales offices</li> </ul>	<ul style="list-style-type: none"> <li>Environment Bureau, Tokyo Prefecture</li> </ul>
Category 15: Investments	<ul style="list-style-type: none"> <li>Of all the Scope 1 and 2 emissions of investee companies, our emissions are calculated based on the percentage of shares owned.</li> </ul>	

\*1: Original unit value made from actual data based on communications services LCAs, etc.

## Accounting results

Division	Scope, Category			Emissions subject to accounting	Emissions (thousands of tons-CO2e)	
Reporting company	Scope 1 (direct emissions)			Direct emissions from the use of fuel and industrial processes by the reporting company	220	
	Scope 2 (indirect emissions from energy use)			Indirect emissions from the use of electricity and heat purchased by the reporting company	4630	
Upstream	Scope 3	1	Purchased goods and services	Emissions from activities up to manufacturing of raw materials, parts, purchased goods, sales-related materials, etc.	1,962	12,175
		2	Capital goods	Emissions from construction and manufacturing of the reporting company's capital goods	4,997	
		3	Fuel- and energy-related activities not	Emissions from procurement of fuel used in power generation, etc., for electricity and heat procured from other entities	340	
		4	Upstream transportation and	Emissions from distribution of raw materials, parts, purchased goods, sales-related materials, etc., up to delivery to the reporting company	54.7	
		5	Waste generated in operations	Emissions from transportation and processing of waste generated by the reporting company	5.4	
		6	Business travel	Emissions from business travel by employees	48.6	
		7	Employee commuting	Emissions from transportation of employees when commuting to and from the place of business	21.3	
Downstream		8	Upstream leased assets	Emissions from operation of assets leased to the reporting company (excluding emissions calculated under Scope 1 or 2)	Excluded from calculation <sup>1</sup>	
		9	Downstream transportation and	Emissions from transport, storage, cargo handling, and retail sales of products	Excluded from calculation <sup>2</sup>	
		10	Processing of sold products	Emissions from processing of intermediate products by the reporting company	Excluded from calculation <sup>3</sup>	
		11	Use of sold products	Emissions from use of products by users (consumers and companies)	3,035	
		12	End-of-life treatment of sold products	Emissions from transportation and processing of products upon disposal by users (consumers and companies)	41.6	
		13	Downstream leased assets	Emissions from operation of assets leased to other entities	189	
		14	Franchises	Emissions from franchises	299	
		15	Investments	Emissions from operation of investments	1,181	

\*1. We have excluded Category 8 (upstream leased assets) from calculation because the fuel and electricity used by leased assets is included in Scope 1 and 2 calculations.

\*2. We have excluded Category 9 (downstream transportation and distribution) from calculation because these emissions are almost entirely from our own transportation and use in our own facilities (included in Scope 1 and 2) or from outsourced transportation (included in Category 4).

\*3. We have excluded Category 10 (processing of sold products) from calculation because our main businesses involve no processing of intermediate products.