Welcome to your CDP Climate Change Questionnaire 2020

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

(About the Nippon Paint Holdings Group)
The Nippon Paint Holdings Group (the "NPHD Group") was founded in 1881 as Komyosha, the first manufacturer of Western paint in Japan. For more than 130 years since, we have led the Japanese paint industry, contributing to the growth of the Japanese economy. Today, we offer solutions in two domains: the Paint Business and the Fine Chemicals Business, the latter of which involves surface treatments for the pre-coating process. With locations in Asia, North America, Europe, and South America, we are operating in 29 countries/regions.

(Regional Operations Data)
Japan: A holding company and 15 consolidated subsidiaries, with a total headcount of 3,373
Asia: 107 consolidated subsidiaries with a total headcount of 14,303 in 15 countries/regions including China, Malaysia, Singapore, and Thailand
The Americas: 11 consolidated subsidiaries with a total headcount of 2,640 in the U.S. (the largest operation in the region), Canada, Mexico, and Brazil
Australia: 43 companies with a total headcount of 3,735
Other regions: 19 consolidated subsidiaries with a total headcount of 1,919 in six countries including the U.K., Germany, and Turkey

(What We Do)
We are a comprehensive paint and coating manufacturer providing a broad range of products and services, including automotive coatings, decorative paints (for buildings and bridges and other large structures), industrial coatings (for construction machinery, farming machinery, exterior building materials, office equipment, household electrical appliances, etc.), and paints for marine coatings, auto refinish, DIY, and roads, as well as surface treatments and systems for enhancing painting efficiency.

(Segment Information)
Our net sales by geographical region are as follows (numbers in parentheses are the ratio to total consolidated net sales):
Japan: JPY182.6 billion (26%), Asia excluding Japan: JPY359.2 billion (52%), the Americas: JPY74.6 billion (11%), Oceania: JPY47.6 billion (7%), Other regions: JPY28.0 billion (4%)

Our net sales by product segment are as follows (numbers in parentheses are the ratio to total consolidated net sales):
Automotive Coatings: JPY149.6 billion (22%), Decorative Paints: JPY370.6 billion (54%), Industrial Coatings: JPY70.1 billion (10%), Other Paints: JPY57.0 billion (8%), Fine Chemicals: JPY18.9 billion (3%)

Trade name: Nippon Paint Holdings Co., Ltd. (NPHD)
Osaka Head Office: 2-1-2 Oyodo Kita, Kita-ku, Osaka, Japan 531-8511
Tokyo Head Office: 4-1-15 Minami Shinagawa, Shinagawa-ku, Tokyo 140-8675
Foundation: March 14, 1881
Capital: JPY78,862 million
Headcount: 243 (non-consolidated); 25,970 (consolidated) (as of December 31, 2019)
Representative: TANAKA Masaaki, Chairman, President & CEO

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1, 2019	December 31, 2019	Yes	3 years

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Japan

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

JPY

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-CH0.7

(C-CH0.7) Which part of the chemicals value chain does your organization operate in?

Row 1

Bulk organic chemicals

Polymers

Bulk inorganic chemicals

Other chemicals

Specialty chemicals

Specialty organic chemicals

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	Our Board of Directors (BOD) is responsible for direct supervision of climate-related issues and, on the business execution level, draws up the NPHD Group's ESG strategies/policies and action plans, including those for climate-related issues. Chaired by CEO, the ESG Committee evaluates/promotes the implementation of such strategies/policies/plans. The CEO reports at least four times a year on the progress of ESG promotion, including measures taken to address climate-related issues.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-	Governance mechanisms into	Please explain

related issues are a scheduled agenda item	which climate-related issues are integrated	
Scheduled – some meetings	Reviewing and guiding strategy Monitoring and overseeing progress against goals and targets for addressing climate-related issues	The BOD meets at least once every month. Once every quarter, the BOD is briefed by the CEO (concurrently ESG Committee Chair) on strategies, policies, and issues on climate-related and other environmental challenges, as well as respective targets and their progress, and provides supervision of the situation.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Other committee, please specify Comprised of 25 members, both Japanese and foreign, including heads of functional divisions of NPHD and presidents/CEOs of partner companies ("PCs"; main subsidiaries), the ESG Committee (Chair: CEO, Vice-Chair: CAO) meets at least twice a year to identify and address climate-related issues, draw up relevant targets and action plans, and monitor their progress at the request of the BOD.	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

The NPHD Group places the SDGs and ESG at the core of its management. To "maximize mid- and long-term shareholder value through ESG management, we have drawn up strategies, policies, and action plans on ESG and sustainability for the NPHD Group and established the ESG Committee to evaluate/promote the implementation of such strategies/policies/plans.

Comprised of 25 members, both Japanese and foreign, including heads of functional divisions of NPHD and presidents/CEOs of partner companies ("PCs"; main subsidiaries), the ESG Committee (Chair: CEO, Vice-Chair: CAO) meets at least twice a year to identify and address climate-related issues, draw up relevant targets and action plans, and monitor their progress at the request of the BOD.

In more concrete terms, a subcommittee led by the ESG Committee members (Environment Subcommittee) identifies and assesses the risks and opportunities associated with climate change and discusses (LIST ITEMS ON THE SUBCOMMITTEE'S AGENDA HERE), which are then presented to the ESG Committee for deliberations and decision-making on each agenda item.
Because PCs are represented in the ESG Committee, concrete actions can be taken in a timely manner.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	No, not currently but we plan to introduce them in the next two years	Under consideration (no official decision has been made by the company)

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	3	
Medium-term	3	10	
Long-term	10	30	

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

(1) Damages exceeding 3% of the amount of net assets (on a consolidated basis) within the NPHD Group's reporting boundary
(2) Fluctuation by 10% or more in consolidated net sales within the NPHD Group's reporting boundary from the start-of-year net sales forecast for the relevant fiscal year

(3) Fluctuation by 30% or more in consolidated ordinary profit within the NPHD Group's reporting boundary from the start-of-year ordinary profit forecast for the relevant fiscal year

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

A specific climate-related risk management process

Frequency of assessment

Annually

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

In fiscal 2020, at the request of the BOD, we drew up the NPHD Group's strategies/policies and action plans on ESG and sustainability, including those for climate-related issues, and established the ESG Committee, which evaluates/promotes the implementation of such strategies/policies/plans. Under the ESG Committee is the Environment Subcommittee, which identifies and assesses risks and opportunities associated with climate change and maps out a course of action for material risks and opportunities thus identified. The ESG Committee meets at least twice a year, and the Environment Subcommittee meets every month. Comprised of division heads of Corporate Planning, Safety and Environment, R&D, and ESG Promotion of NPHD and Responsible Care* managers from operating companies within the NPHD Group, the Environment Subcommittee locates and assesses wide-ranging risks and opportunities associated with environmental issues including climate change.

Going forward, the Environment Subcommittee will send the risks and opportunities it has identified and assessed, together with relevant action plans, to the ESG Committee, which will then determine relevant targets and action plans for the NPHD Group after deliberations and report to the BOD.

Operating companies of the NPHD Group are supposed to draw up their business plans in line with the above-mentioned targets and action plans.

* The global chemical industry's voluntary initiative to implement and improve measures for the safety of the environment, with key topics being environmental conservation, security and disaster prevention, industrial safety and health, safety for chemical substances and products, safety for logistics, and communication.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	In Japan, an anti-global warming tax is in place, affecting prices of fossil fuel. Furthermore, the Act on Promotion of Global Warming Countermeasures (the "Anti-Global Warming Act") requires business operators to calculate, report, and announce their greenhouse gas (GHG) emissions. As such, the NPHD Group calculates and reports its GHG emissions and sets its own reduction targets which it endeavors to achieve. There is a risk of these regulations negatively affecting our performance via manufacturing costs.
Emerging regulation	Relevant, sometimes included	We now have to pay JPY289 per ton of GHG emissions as an anti-global warming tax. As curbing GHG emissions is a major issue globally, there is no denying that this tax burden could be significantly increased, posing a potential risk. We are being requested to disclose climate-related information by an increasing number of organizations, including the Task Force on Climate-related Financial Disclosures (TCFD). An increase in cost for responding to such requests could pose a potential risk for us. For the auto-related companies—our main customer group—, regulations on fuel economy and CO_2 emissions are of overriding importance. Should our customers' purchasing behaviors change due to such regulations, there is a risk of our performance and strategies being negatively affected.
Technology	Relevant, always included	Technological innovation keeps evolving toward a low carbon society. Should the NPHD Group find it difficult to respond to such technological innovation, we may run the risk of losing business. To prevent this risk from materializing, we are making constant efforts to develop new technologies and products, including coatings that support changes in materials as a result of reducing the weight of car bodies, a technique that reduces baking energy

		during painting and coatings that match said technique, and products featuring low carbon technologies, such as heat shielding.
Legal	Not relevant, included	There is no legal framework that directly regulates GHG emissions from our businesses at this point in time, so for now, there is no legal risk that can directly affect our businesses. Pursuant to the Anti-Global Warming Act, we calculate and report GHG emissions periodically and monitor the status of relevant laws once a year.
Market	Relevant, always included	Users of our products deem reduction in GHG emissions to be a major issue, and many of them, be they in the auto, housing, shipbuilding, or maritime shipping industries, are asking us to use low-carbon technologies that help to reduce CO_2 emissions. Failure to respond to such requests could lower our products' competitive edge, and run the risk of market share loss. Regarding the risks associated with our products' competitiveness, we are constantly assessing them to make improvements.
Reputation	Relevant, always included	Failure to properly address climate change by, for example, reducing GHG emissions, and developing/disseminating low-carbon technologies, and disclose information thereof could result in our external evaluation being lowered and our customers, investors, and other stakeholders losing trust in us. This would result in us not being chosen by customers or our shareholder value being damaged. We monitor the external evaluation of our ESG, including climate-related issues, and report findings to the ESG Committee.
Acute physical	Relevant, always included	There is a risk of product supply coming to a stop, should any of our plants be affected, logistics be halted, or supply of materials be suspended by the ever-intensifying natural disasters resulting from climate change, such as floods and tornados. To prepare ourselves for these risks, we have drawn up and implemented a business continuity plan (BCP) and have the Supply Chain Management Department identify and assess potential risks to report to the BOD.
Chronic physical	Relevant, sometimes included	Possible risks in this regard include a closedown of plants due to a rise in sea-level and an increase in air-conditioning and cooling costs as temperatures go up. We have begun discussing these possibilities, and we are in the process of identifying and assessing specific risks.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation

Carbon pricing mechanisms

Primary potential financial impact

Increased direct costs

Company-specific description

At present, JPY289 is collected for every ton of GHG emissions for the anti-global warming tax. Given the recent rise in awareness of anti-climate change control measures, however, there is no denying that this tax is likely to increase. Should this happen, the energy costs of our operations will increase, which in turn will push up our cost of goods sold (COGS).

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

162,260,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Suppose the anti-global warming tax is increased from JPY289 per ton of GHG emissions to JPY4,000, the NPHD Group's tax burden on 43,725 tons of CO_2 emissions (in Japan) in 2018 would have been JPY174.90 million, a massive jump from the current amount of JPY12.64 million.

Cost of response to risk

0

Description of response and explanation of cost calculation

Business risks may be lowered by diverse means, such as reducing CO_2 emissions by updating production equipment, utilizing renewable energy, and increasing logistic efficiency, but we have yet to decide which method to employ, so the prospective cost is yet to be determined.

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Should the severity and frequency of floods, tornados, and other abnormal weather patterns increase, there is a risk of our plants being affected and closed down, which would result in lower sales. Plants located near rivers or coastlines, in particular, are vulnerable to risks of floods, high tides, *tsunami*, and other disasters.

Time horizon

Long-term

Likelihood

Unlikely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Cost of response to risk

Description of response and explanation of cost calculation

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Opp1

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

One risk associated with climate change that may affect our strategies is global warming. One of the reasons for this is that our core customers in the auto and construction industries take a keen interest in anti-global warming measures.
"Eco-friendly products" as defined by NPHD include "products that, thanks to functions of paint/coating films, significantly increase energy efficiency when the coated objects are used, compared with general products, thus mitigating the impact of climate change." We are also engaging in research and development of products that lower carbon emissions in such product categories as automotive coatings, industrial coatings, decorative paints, and marine coatings.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

In the automobile industry, which forms our core customer base, demand for low carbon products is strong, and we can safely expect our sales to increase through technological innovation. At this point in time, however, it is difficult to correctly estimate contributions of low carbon technologies to our financial position, so we do not have such financial impact figures.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

The NPHD Group is engaging in the development of innovative technologies in order to "hone our technological prowess to offer solutions to social issues." In fiscal 2019, we spent JPYXXX on R&D.

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?

No, but we anticipate using qualitative and/or quantitative analysis in the next two years

C3.1c

(C3.1c) Why does your organization not use climate-related scenario analysis to inform its strategy?

NPHD has yet to analyze climate-related scenarios as we have not adequately recognized risks associated with climate change. Going forward, we will have the Environment Subcommittee, which is placed under the ESG Committee, discuss this to introduce and implement climate-related scenario analysis within two years from now.

C3.1d

(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	We believe that one of the climate-related risks that may influence our strategy is global warming. One of the reasons for this is that our core customers in the auto and construction industries have a significant interest in anti-global warming measures. If we were perceived to be making light of climate action, there is a risk that our customers may not choose us as their supplier, depriving us of business over the mid- and long-term.

		To combat global warming, we have set for ourselves goals for reducing CO_2 emissions and energy consumption under the responsible care management system, and we monitor progress vis-à-vis the goals for each business of automotive coatings, industrial coatings, decorative paints, and marine coatings. We are also developing and distributing products that help to reduce CO_2 emissions.
Supply chain and/or value chain	Yes	We use large quantities of various petrochemical products to produce and sell coatings and paints. Because of this nature of our business, we believe that our purchases of raw materials in the supply chain have a substantial impact on climate change over the long term. We are working to improve this by assessing what our suppliers are doing to control climate change. Under the responsible care management system, we have chosen "environmental conservation" as a priority subject and set for ourselves a CO_2 emissions reduction target to the effect that "The basic KPI is a 1% reduction per unit," thus working to prevent global warming. The Japan Chemical Industry Association (JCIA), of which we are a member, has participated in the Japan Business Federation's (Keidanren's) Commitment to a Low Carbon Society, to "strengthen cooperation with other interested groups that are working to curb CO_2 emissions over the entire supply chain by spreading low carbon products and technologies." We engage in the development and distribution of products that help to reduce CO_2 emissions, such as low-temperature curing coatings, heat shield paints, and hydrophilic coatings for air conditioners, in an effort to reduce CO_2 emissions throughout the value chain that includes customer businesses and end users.
Investment in R&D	Yes	Some of the requests that we receive from our customers include improvement of fuel economy for automobiles and ships, increased energy efficiency for housing, and energy conservation at their painting process. Failure to meet these requests could result in us not being chosen as a supplier, which may result in our losing business over the mid- and long-term. The NPHD Group is making continued R&D efforts to provide products that contribute to climate control, launching such eco-friendly products as heat shield paints for increasing air-conditioning efficiency for housing and

		automobiles, self-polishing antifouling paints for higher fuel efficiency of ships, and low-temperature curing coatings that curb energy consumption at the painting process. Established in 2020, our materiality includes "Climate change," "Innovation for a sustainable future," etc. Accordingly, we will focus on the creation of innovation that offers solutions to social issues that are difficult to solve with conventional methods. The JCIA, of which we are a member, has participated in Keidanren's Commitment to a Low Carbon Society, to "develop innovative technologies as part of its mid- and long-term efforts to develop commercially viable technologies by 2020 and thereafter." "Eco-friendly products" as defined by NPHD include "products that, thanks to functions of paint/coating films, significantly increase energy efficiency when the coated objects are used, compared with general products, thus mitigating the impact of climate change." We are also engaging in research and development of products that reduce the environmental impact in product categories that include automotive coatings, industrial coatings, decorative paints and marine coatings.
Operations	Yes	Under the responsible care management system, we have chosen "environmental conservation" as a priority subject and set for ourselves a CO_2 emissions reduction target to the effect that "The basic KPI is a 1% reduction per unit," thus working to prevent global warming. The JCIA, of which we are a member, has participated in Keidanren's Commitment to a Low Carbon Society, to "curb CO_2 emissions from domestic business activities." In more concrete terms, we are promoting the optimal use of various facilities and equipment that consume electricity and gas. On the shop floor where large equipment is used, we are reviewing proper operating conditions of compressors, boilers, etc. Also, we encourage our employees to turn off air conditioners and office equipment when not in use, thus making continuous efforts to reduce energy consumption.

C3.1e

(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues	In the NPHD Group's CSR goals for fiscal 2020, which were set in line with our materiality, we stated "Business and earnings expansion driven by value creation through environmentally-friendly approaches" as an ideal state for the environmental aspect, thus working to "promote the development and spread of eco-friendly products" on a global basis. In 2015, the United Nations adopted the sustainable development goals (SDGs), and private businesses like NPHD are expected to commit to meeting certain targets. The NPHD Group will continue to seek the mitigation of the environmental impact caused by our products, which is one of our CSR goals. In March 2019, we defined "eco-friendly products" for the NPHD Group. We began by visualizing the "ideal society in 2030" as described below and discussed what a paint manufacturer can do to realize such a society from a future-oriented perspective. [A sustainable society = the ideal society in 2030 (Environmental aspect) according to NPHD] 1. A society that sustains itself with minimal resource consumption and is able to use its infrastructure for a long time 2. A society where CO_2 emissions are kept low by energy conservation and global warming is kept in check 3. A society where materials with an environmental impact are not discharged into the environment and water and air are kept clean 4. A society where pollution of water sources and oceans is prevented and sound ecosystems are maintained These discussions led us to define "eco-friendly products." Besides putting minimal stress on the environment, such products are categorized as ones that reduce the environmental impact in a variety of ways, that is, conserving energy at the painting process and reducing industrial waste by heat shield function or by extending service life. We are contributing to the sustainable development of our society through the development and spread of these eco-friendly products, which we hope will boost our sales. We prepare financial plans in line with this scenario.

C3.1f

(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Intensity target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Year target was set

2019

Target coverage

Country/region

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Intensity metric

Metric tons CO2e per unit of production

Base year

2018

Intensity figure in base year (metric tons CO2e per unit of activity)

0.12

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

100

Target year

2019

Targeted reduction from base year (%)

1

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]

0.1188

% change anticipated in absolute Scope 1+2 emissions

1.25

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year (metric tons CO2e per unit of activity)

0.15

% of target achieved [auto-calculated]

-2,500

Target status in reporting year

Revised

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Please explain (including target coverage)

Total CO_2 emissions increased as we added three domestic NPHD Group companies last year while increasing the number of companies to be covered in the target year.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

No other climate-related targets

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	6	233.14
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

We replaced boiler facilities with more efficient ones.

Estimated annual CO2e savings (metric tonnes CO2e)

65.04

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

1,519,000

Investment required (unit currency – as specified in C0.4)

6,920,000

Payback period

4-10 years

Estimated lifetime of the initiative

1-2 years

Comment

Initiative category & Initiative type

Energy efficiency in production processes

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

47.5

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

2,160,000

Investment required (unit currency – as specified in C0.4)

0

Payback period

<1 year

Estimated lifetime of the initiative

1-2 years

Comment

Initiative category & Initiative type

Energy efficiency in production processes

Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)

35.9

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

1,165,698

Investment required (unit currency – as specified in C0.4)

4,620,000

Payback period

4-10 years

Estimated lifetime of the initiative

1-2 years

Comment

Initiative category & Initiative type

Energy efficiency in production processes

Reuse of steam

Estimated annual CO2e savings (metric tonnes CO2e)

56.5

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

1,140,000

Investment required (unit currency – as specified in C0.4)

8,020,000

Payback period

4-10 years

Estimated lifetime of the initiative

1-2 years

Comment

Initiative category & Initiative type

Energy efficiency in production processes

Compressed air

Estimated annual CO2e savings (metric tonnes CO2e)

20.6

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

556,047

Investment required (unit currency – as specified in C0.4)

4,000,000

Payback period

4-10 years

Estimated lifetime of the initiative

1-2 years

Comment

Initiative category & Initiative type

Energy efficiency in buildings
Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

7.6

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

144,000

Investment required (unit currency – as specified in C0.4)

2,490,000

Payback period

16-20 years

Estimated lifetime of the initiative

3-5 years

Comment

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	In response to the Minamata Convention on Mercury, we replaced mercury-containing lighting apparatuses with LED lighting apparatuses with higher energy efficiency.
Dedicated budget for energy efficiency	We introduced the latest energy-conservation equipment at the time of equipment replacement.
Employee engagement	We are making improvements to production processes and enhancing/maintaining the operating efficiency of production equipment. Other than the above, we turn off lights whenever not in use, adjust air conditioners' temperature, introduce "Cool Biz" energy-saving campaign, etc.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Company-wide

Description of product/NPHD Group of products

The NPHD Group offers numerous products that help to control climate change. For automotive coatings, we have e-coat coatings with high throwing power, which achieve uniform application with minimal waste, and water-based paints that eliminate the thermal curing process at the painting line. For industrial coatings and decorative paints, we have powder paints that use no organic solvents as a diluent for coating, and infrared reflection heat shield coatings that curb temperature spikes in coated objects by forming a film that reflects infrared rays. For marine coatings, we have antifouling paints for ship bottoms that curb energy consumption while sailing. In the fine chemical field, we have low-temperature treatment agents that help to shorten the pre-paint treatment process.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Innovating coating technology

% revenue from low carbon product(s) in the reporting year

19

Comment

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1, 2018

Base year end

December 31, 2018

Base year emissions (metric tons CO2e)

12,141

Comment

Scope 2 (location-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 2 (market-based)

Base year start

January 1, 2018

Base year end

December 31, 2018

Base year emissions (metric tons CO2e)

24,289

Comment

A CO_2 conversion factor specified by Keidanren and the JCIA is used.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superceded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)
Other, please specify
A CO_2 conversion factor specified by Keidanren and the JCIA

C5.2a

(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Gross CO_2 emissions are calculated from the amount used in Scope 1 & 2 by applying the CO_2 conversion factor presented in Keidanren's/JCIA's Commitment to a Low Carbon Society.
Pursuant to the Act on the Rationalization, etc. of Energy Use (the "Energy Saving Act") and the Anti-Global Warming Act, domestic NPHD Group companies are within the scope of calculation.
When filing an application according to the Energy Saving Act and the Anti-Global Warming Act, we use a conversion factor specified in the relevant act (specific energy consumption -> crude oil equivalent, specified by the Energy Saving Act; consumption after conversion to crude oil equivalent -> CO_2 emissions, specified by the Anti-Global Warming Act) to calculate the total CO_2 emissions.

C6. Emissions data

C6.1

(C6.1) What were your organization’s gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

16,824

Start date

January 1, 2019

End date

December 31, 2019

Comment

Gross CO_2 emissions increased as we added three domestic NPHD Group companies last year while increasing the number of companies to be covered in the reporting year.

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)

12,141

Start date

January 1, 2018

End date

December 31, 2018

Comment

Gross CO_2 emissions increased from 2017 as we added one domestic NPHD Group company in 2018 while increasing the number of companies to be covered.

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)

12,942

Start date

January 1, 2017

End date

December 31, 2017

Comment

Past year 3

Gross global Scope 1 emissions (metric tons CO2e)

Start date

End date

Comment

Following the change in the fiscal year-end in 2017 (in 2016 and before: from April to March of the following year, in 2017 and after: from January to December), the fiscal year ended December 2016 was nine months long. Because it is accordingly impossible to make a year-long calculation, no response is given (approved by Mr. Tsukamoto of CDP Japan).
For reference, the nine-month results are as follows:
Gross global Scope 1 emissions (metric tons CO_2e): 9,415
Starting date: April 1, 2016
Ending date: December 31, 2016

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

For reports based on the Energy Saving Act and Anti-Global Warming Act, we use a factor specified by the relevant act (crude oil equivalent factor: Energy Saving Act, CO_2 emissions factor: Anti-Global Warming Act), which serves as a location-based figure, provided, however, that a conversion factor specified by the electric power company with which each location maintains a contract may be used for an application pursuant to the Anti-Global Warming Act (Electric power companies are allowed to choose a CO_2 emissions factor out of those specified by the Anti-Global Warming Act).
For reports to the JCIA, we use a CO_2 conversion factor in Keidanren's/JCIA's Commitment to a Low Carbon Society, which serves as a market-based figure.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

37,904

Scope 2, market-based (if applicable)

28,889

Start date

January 1, 2019

End date

December 31, 2019

Comment

The location-based figure is calculated using factors (default values) based on the Energy Saving Act and Anti-Global Warming Act.
The market-based figure is calculated using factors specified in Keidanren's/JCIA's Commitment to a Low Carbon Society.
Gross CO_2 emissions increased as we added three domestic NPHD Group companies last year while increasing the number of companies to be covered in the reporting year.

Past year 1

Scope 2, location-based

31,869

Scope 2, market-based (if applicable)

24,289

Start date

January 1, 2018

End date

December 31, 2018

Comment

The location-based figure is calculated using factors (default values) based on the Energy Saving Act and Anti-Global Warming Act.
The market-based figure is calculated using factors specified in Keidanren's/JCIA's Commitment to a Low Carbon Society.
Gross CO_2 emissions increased from 2017 as we added one domestic NPHD Group company in 2018 while increasing the number of companies to be covered.

Past year 2

Scope 2, location-based

30,114

Scope 2, market-based (if applicable)

22,952

Start date

January 1, 2017

End date

December 31, 2017

Comment

The location-based figure is calculated using factors (default values) based on the Energy Saving Act and Anti-Global Warming Act.
The market-based figure is calculated using factors specified in Keidanren's/JCIA's Commitment to a Low Carbon Society.

Past year 3

Scope 2, location-based

Scope 2, market-based (if applicable)

Start date

End date

Comment

Following the change in the fiscal year-end in 2017 (in 2016 and before: from April to March of the following year, in 2017 and after: from January to December), the fiscal year ended December 2016 was nine months long. Because it is accordingly impossible to make a year-long calculation, no response is given (approved by Mr. Tsukamoto of CDP Japan).
For reference, the nine-month results are as follows:
Scope 2, location-based: 24,201
Scope 2, market-based: 18,445
Starting date: April 1, 2016
Ending date: December 31, 2016

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1,093,242

Emissions calculation methodology

We calculated CO_2 emissions by multiplying the amount for each item (out of 275,780 tons of raw materials purchased in 2019) by the emission factor for each product code on the LCI database IDEAv2 (for calculating supply chain GHG emissions). The amount of raw materials purchased available for this calculation was 252,445 tons (91% of the total). Emissions associated with production activities by outsourcing partners are not included as they are not within the scope of assessment. Raw materials purchased represent raw materials that are purchased for production activities in Japan.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We assume that energy consumption as a result of production activities using raw materials purchased, energy consumption as a result of production activities by manufacturing outsourcing partners, etc. are relevant.

Capital goods

Evaluation status

Relevant, not yet calculated

Please explain

We assume that emissions from construction of plants and buildings (our own assets), production processes within our facilities, etc. are relevant.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, not yet calculated

Please explain

We assume that fuel-use emissions or emissions generated during energy production/purification processes and transportation, etc. are relevant.

Upstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Please explain

We assume that emissions while transporting raw materials and secondary materials we use, etc. are relevant.

Waste generated in operations

Evaluation status

Relevant, not yet calculated

Please explain

We assume that combustion, transport, etc. of waste are relevant.

Business travel

Evaluation status

Relevant, not yet calculated

Please explain

We assume that fuel and energy consumption by means of transport we use, electricity consumption while lodging, etc. are relevant.

Employee commuting

Evaluation status

Relevant, not yet calculated

Please explain

We assume that fuel and energy consumption by means of transport we use, etc. are relevant.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Because all assets that we lease fall under Scope 1 or 2, they are not included in Scope 3.
Examples
Scope 1 (using fuel purchased by the company): leased vehicles, forklifts
Scope 2 (using electricity purchased by the company): printers, computers, measuring instruments, forklifts (rechargeable)

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

14,609

Emissions calculation methodology

We posted CO_2 emissions associated with the transport of our products delivered by any of our NPHD Group companies categorized as a specified consigner for the purpose of the Energy Saving Act.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Please explain

Even when we have outsourced the transport of our products, the use of fuel and energy that we purchase or whose expenses we cover is excluded.
Normally, we make our calculations by March (Energy Saving Act: CO_2 emissions reporting while transporting our products, which a business operator designated as a specified consigner is required to do). Due to the COVID-19 pandemic, however, we have yet to calculate emissions for our fiscal 2019 report (as the due date for reporting was extended, we prioritized infection control measures.). In fiscal 2018, we reported 14,609 tons of CO_2.

Processing of sold products

Evaluation status

Relevant, not yet calculated

Please explain

We assume that processing at our B2B customers (e.g. coating using our products at an automobile production line) is relevant.
Products other than decorative paints are relevant.

Use of sold products

Evaluation status

Relevant, not yet calculated

Please explain

We assume use by our B2C consumers (e.g. use of vehicles they have purchased for a commercial purpose).
Use of decorative paints is relevant.

End of life treatment of sold products

Evaluation status

Relevant, not yet calculated

Please explain

We assume CO_2 generated when combusting paint films after disposal (excluding CO_2 derived from fuel for combustion) is relevant.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

We do not lease assets that we own for the domestic business.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

We do not franchise for the domestic business.

Investments

Evaluation status

Not evaluated

Please explain

We have yet to assess emissions associated with investments in the domestic business.

Other (upstream)

Evaluation status

Please explain

Other (downstream)

Evaluation status

Please explain

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.21

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

45,714

Metric denominator

Other, please specify

Total sales (in million yen)

Metric denominator: Unit total

216,614

Scope 2 figure used

Market-based

% change from previous year

0.21

Direction of change

Increased

Reason for change

Because we did not calculate emissions based on total sales intensity in the previous fiscal year

Intensity figure

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

Metric denominator

Metric denominator: Unit total

Scope 2 figure used

% change from previous year

Direction of change

Reason for change

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

No

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Japan	16,824

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Automotive coatings business	7,681
General industrial coatings business	3,308
Decorative paints business (for construction, heavy-duty anticorrosive structures, etc.)	5,500
Surface treatment business	238
Marine coatings business (almost all production is outsourced)	34
Export/import of raw materials and finished products	34
Group supervisory functions	29

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Comment
Chemicals production activities	15,806	CO_2 emissions were calculated by adding up the amounts of fuel consumed at domestic production bases. Accordingly, reported here are the total Scope 1 emissions excluding those from two R&D centers (in Osaka and Tokyo), the Osaka Head Office, sales offices, and other locations.

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Japan	37,904	28,889	179,922	0

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Automotive coatings business	13,365	10,186
General industrial coatings business	9,713	7,403
Decorative paints business (for construction, heavy-duty anticorrosive structures, etc.)	12,755	9,721
Surface treatment business	918	700
Marine coatings business (almost all production is outsourced)	545	415
Export/import of raw materials and finished products	69	53
Group supervisory functions	539	411

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Chemicals production activities	31,830	24,259	The location-based figure was calculated using the factors (default values) specified in the Energy Saving Act / Anti-Global Warming Act The market-based figure was calculated using the factors specified in

			Keidanren's/JCIA's Commitment to a Low Carbon Society. CO_2 emissions were calculated by adding up the amounts of fuel consumed at domestic production bases. Accordingly, reported here are the total Scope 1 emissions excluding those from two R&D centers (in Osaka and Tokyo), the Osaka Head Office, sales offices, and other locations.

C-CH7.8

(C-CH7.8) Disclose the percentage of your organization's Scope 3, Category 1 emissions by purchased chemical feedstock.

Purchased feedstock	Percentage of Scope 3, Category 1 tCO2e from purchased feedstock	Explain calculation methodology
Aromatics extraction	5	We calculated CO_2 emissions by multiplying the amount of relevant raw materials purchased in 2019 (toluene, partially aromatic solvents) by the LCI database IDEAv2 (for calculating supply chain GHG emissions) emission factor for each material. The resultant figure of 50,540 tons was divided by the C6.5 total emissions of 1,093,242 tons.
Polymers	58	We calculated CO_2 emissions by multiplying the amount of relevant raw materials purchased in 2019 (alkyd resins, epoxy resins, etc.) by the LCI database IDEAv2 (for calculating supply chain GHG emissions) emission factor for each material. The resultant figure of 634,669 tons was divided by the C6.5 total emissions of 1,093,242 tons.
Specialty chemicals	22	We calculated CO_2 emissions by multiplying the amount of relevant raw materials purchased in 2019 (additive agents, special monomers, pigments, etc.) by the LCI database IDEAv2 (for calculating supply chain GHG emissions) emission factor for each material. The resultant figure of 236,031 tons was divided by the C6.5 total emissions of 1,093,242 tons.
Other base chemicals	15	We calculated CO_2 emissions by multiplying the amount of relevant raw materials purchased in 2019 (synthetic solvents, general monomers, soda chemicals, etc.) by the LCI database IDEAv2 (for calculating supply chain GHG

		emissions) emission factor for each material. The resultant figure of 163,927 tons was divided by the C6.5 total emissions of 1,093,242 tons.

C-CH7.8a

(C-CH7.8a) Disclose sales of products that are greenhouse gases.

	Sales, metric tons	Comment
Carbon dioxide (CO2)	0	
Methane (CH4)	0	
Nitrous oxide (N2O)	0	
Hydrofluorocarbons (HFC)	0	
Perfluorocarbons (PFC)	0	
Sulphur hexafluoride (SF6)	0	
Nitrogen trifluoride (NF3)	0	

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	No renewable energy consumed
Other emissions reduction activities	8,145	Increased	17.8	Emissions increased as the scope of calculation expanded (additional three companies)
Divestment				
Acquisitions				

Mergers				
Change in output				
Change in methodology				
Change in boundary				
Change in physical operating conditions				
Unidentified				
Other				

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No

Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	0	81,729	81,729
Consumption of purchased or acquired electricity		0	179,922	179,922
Consumption of self-generated non-fuel renewable energy		0		0
Total energy consumption		0	261,651	261,651

C-CH8.2a

(C-CH8.2a) Report your organization's energy consumption totals (excluding feedstocks) for chemical production activities in MWh.

	Heating value	Total MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	76,441
Consumption of purchased or acquired electricity		151,091
Consumption of self-generated non-fuel renewable energy		0
Total energy consumption		227,532

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	Yes
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Kerosene

Heating value

Total fuel MWh consumed by the organization

2,615

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

Emission factor

Unit

Emissions factor source

Comment

Fuels (excluding feedstocks)

Gas Oil

Heating value

Total fuel MWh consumed by the organization

231

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

Emission factor

Unit

Emissions factor source

Comment

Fuels (excluding feedstocks)

Other, please specify

A fuel oil

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

20,678

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling

Emission factor

Unit

Emissions factor source

Comment

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

Total fuel MWh consumed by the organization

2,308

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

Emission factor

Unit

Emissions factor source

Comment

Fuels (excluding feedstocks)
Natural Gas

Heating value

Total fuel MWh consumed by the organization
0.2

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
0

MWh fuel consumed for self-generation of cooling
0

Emission factor

Unit

Emissions factor source

Comment

Fuels (excluding feedstocks)
Town Gas

Heating value

Total fuel MWh consumed by the organization
55,503

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling

Emission factor

Unit

Emissions factor source

Comment

Fuels (excluding feedstocks)

Motor Gasoline

Heating value

Total fuel MWh consumed by the organization

393

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

Emission factor

Unit

Emissions factor source

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	2,651	2,651	0	0
Heat	19,059	19,059	0	0
Steam	113,145	113,145	0	0
Cooling	27,183	27,183	0	0

C-CH8.2d

(C-CH8.2d) Provide details on electricity, heat, steam, and cooling your organization has generated and consumed for chemical production activities.

	Total gross generation (MWh) inside chemicals sector boundary	Generation that is consumed (MWh) inside chemicals sector boundary
Electricity	2,651	2,651
Heat	19,059	19,059
Steam	106,523	106,523
Cooling	21,795	21,795

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

None (no purchases of low-carbon electricity, heat, steam or cooling)

Low-carbon technology type

Country/region of consumption of low-carbon electricity, heat, steam or cooling

MWh consumed accounted for at a zero emission factor

Comment

C-CH8.3

(C-CH8.3) Does your organization consume fuels as feedstocks for chemical production activities?

Yes

C-CH8.3a

(C-CH8.3a) Disclose details on your organization's consumption of fuels as feedstocks for chemical production activities.

Fuels used as feedstocks

Other, please specify

Light oil

Total consumption

66.63

Total consumption unit

thousand liters

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit

2.5

Heating value of feedstock, MWh per consumption unit

675.37

Heating value

Unable to confirm heating value

Comment

The market-based figure is used as an emission factor.

C-CH8.3b

(C-CH8.3b) State the percentage, by mass, of primary resource from which your chemical feedstocks derive.

	Percentage of total chemical feedstock (%)
Oil	91.76
Natural Gas	1.34
Coal	5.07
Biomass	1.83

Waste (non-biomass)	0
Fossil fuel (where coal, gas, oil cannot be distinguished)	0
Unknown source or unable to disaggregate	0

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C-CH9.3a

(C-CH9.3a) Provide details on your organization's chemical products.

Output product

Other, please specify

Paints

Production (metric tons)

288,354

Capacity (metric tons)

Direct emissions intensity (metric tons CO2e per metric ton of product)

0.15

Electricity intensity (MWh per metric ton of product)

0.59

Steam intensity (MWh per metric ton of product)

0

Steam/ heat recovered (MWh per metric ton of product)

0

Comment

The direct emissions intensity used here is a market-based CO_2 conversion factor, which was calculated using a factor specified in Keidanren's/JCIA's Commitment to a Low Carbon Society.

Within the scope of calculation were paint/coating products grouped by application into the categories of automotives, general industry, and construction and heavy-duty anticorrosive structures. Marine coatings are outside of the scope as their production is outsourced.

Output product

Specialty chemicals

Production (metric tons)

22,064

Capacity (metric tons)

Direct emissions intensity (metric tons CO2e per metric ton of product)

0.04

Electricity intensity (MWh per metric ton of product)

0.2

Steam intensity (MWh per metric ton of product)

0

Steam/ heat recovered (MWh per metric ton of product)

0

Comment

The direct emissions intensity used here is a market-based CO_2 conversion factor, which was calculated using a factor specified in Keidanren's/JCIA's Commitment to a Low Carbon Society.

The above responses were prepared by limiting the scope of calculation to our surface treatment business only.

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment

Row 1	Yes	In the automotive coatings field, we have developed and introduced eco-friendly coating materials, such as products for reducing organic solvents, water-based paints, and e-coat coatings without tin. We are also engaged in developing coating materials that help to reduce energy consumption, such as process-shortening products and low-temperature curing coatings. In the industrial coatings field, in response to the social circumstances of tightening environmental regulations both in Japan and abroad, including regulations on the reduction of volatile organic compound (VOC) emissions, we are making a steady shift to eco-friendly products, such as powder paints, water-based paints, high solid coatings, and heat shield paints. In the decorative paints field, we are promoting the popularization of the thick-film flexible type, special clear coating method (offers both protection and maintenance by enhancing the visibility of concrete structures), and anticorrosion paints for shortened schedules/processes. In the automotive refinish coatings field, we are developing eco-friendly paints. In the marine coatings field, we have successfully applied innovative technologies to the development of paints that reduce carbon dioxide emissions, increase fuel economy, or save energy, as well as antifouling paints that use no antifouling agents. In the fine chemical field, we are developing and expanding the introduction of eco-friendly pre-paint treatment agents, which significantly reduce energy consumption and waste at the film-forming process.

C-CH9.6a

(C-CH9.6a) Provide details of your organization's investments in low-carbon R&D for chemical production activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Process step integration	Large scale commercial deployment	≤20%		
Radical process redesign	Large scale commercial deployment	≤20%		
Product redesign	Large scale commercial deployment	≤20%		
Waste heat recovery	Large scale commercial deployment	≤20%		
Unable to disaggregate by technology area		≤20%		

Other, please specify Powder paints, e-coat coatings	Large scale commercial deployment	≤20%		
Product redesign	Full/commercial-scale demonstration	≤20%		
Radical process redesign	Basic academic/theoretical research	≤20%		
Bio technology	Basic academic/theoretical research	≤20%		

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No emissions data provided

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Information collection (understanding supplier behavior)

Provision of technologies and raw materials

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

21

% total procurement spend (direct and indirect)

90

% of supplier-related Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

Number of suppliers subject to our CSR survey: 53 out of 247 suppliers

The 53 suppliers were chosen because together, they account for 90% of our total purchase of raw materials.

The top 53 suppliers account for 21% of all our suppliers.

Impact of engagement, including measures of success

We are working to reduce GHG emissions throughout our supply chain from procurement of raw materials, production, distribution, use of products, disposal, to recycling. We do not have a quantitative emissions reduction target at this time, but we conduct surveys to see what our suppliers are doing in this regard to determine which ones are proactive in environmental activities, including GHG reduction, and which ones are not.

To reduce emissions in the raw materials procurement stage, we send questionnaire surveys to key suppliers to ask what they are doing to minimize their environmental impact and encourage those who we believe can do more to improve their approaches. Meanwhile, we make it a rule to purchase more raw materials from high achievers.

The 2019 activity survey found that eight of our suppliers scored low (together accounting for 8% of the total purchase amount), so we discussed how they could improve.

The same survey found that 45 of our suppliers (together accounting for 82% of the total amount purchased) had no issues.

Going forward, we will continue to conduct supplier surveys to promote the reduction of GHG emissions throughout our supply chain.

Comment

Aside from the surveys, we are working with our suppliers to develop raw materials that help to reduce GHG emissions. By utilizing such materials, we are raising the levels of our products and services and contributing to reductions on the customer side. We are also reducing GHG emissions by consolidating and streamlining deliveries of raw materials to our locations.

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to education customers about your climate change performance and strategy

% of customers by number

% of customer - related Scope 3 emissions as reported in C6.5

Please explain the rationale for selecting this group of customers and scope of engagement

In our marine coatings business strategy, self-polishing antifouling coatings that increase the fuel economy of ships assume high importance. Because a reduction in fuel costs means a lot (both for climate control and cost reduction) for companies that operate ships, we are working with them to organize educational activities on the reduction of GHG emissions.

Impact of engagement, including measures of success

For the improvement of ships' fuel economy, complex factors are at play, such as differences in the thermal efficiency of engines and selection of efficient courses. Because of this, it is difficult to make a quantitative evaluation, but our test values show improvement in fuel economy between 4% (LF-Sea) and 10% (A-LF-Sea), depending on products. The above-mentioned products have been introduced to 2,102 domestic and foreign vessels (LF-Sea and A-LF-Sea) (current as of December 2016).

Type of engagement

Collaboration & innovation

Details of engagement

Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number

% of customer - related Scope 3 emissions as reported in C6.5

Please explain the rationale for selecting this group of customers and scope of engagement

Our key customer groups of auto manufacturers and housing developers are focused on reducing their impact on climate change and hence eagerly lowering GHG emissions at their production sites; subsequently, we are required to contribute to their activities in this regard.

At the request of our customers, we are making proposals for various products, including low-temperature curing coatings that lower curing temperature to reduce energy consumption while painting, and suggesting and jointly developing efficient methods for the painting process.

Impact of engagement, including measures of success

Customer companies can lower energy consumption at their production lines. Such data is shared with us to some extent, but they assess the impact of engagement from processes other than painting processes as well, that is, how much energy

efficiency has improved throughout their production line and plant. As such, they do not have data on our specific contributions.
Nonetheless, we do have our own estimates: in one instance of joint efforts with our customers, we were able to reduce gas consumption by approximately 5% by lowering the curing temperature of powder paints.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Trade associations

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

Japan Chemical Industry Association

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Global warming initiatives
Our planet maintains a temperature comfortable for human, animal, and plant life thanks to "greenhouse gases (GHG)" that surround the atmosphere, such as carbon dioxide (CO_2) and methane. However, it is said that our planet is warming; because of the increase in oil and coal consumption on the back of intensifying industrial activities and deforestation, GHG concentrations keep increasing, throwing our planet off balance and causing a temperature rise on a global scale. If our planet keeps warming, it is believed that we will see all kinds of serious consequences, such as desertification, rising sea levels, and ecosystem disruptions.

Chemical industry's initiatives to reduce CO_2 emissions
To face these circumstances, the chemical industry in Japan joined Keidanren Voluntary Action Plan on the Environment from fiscal 1997 to fiscal 2012 to engage in continued efforts to promote energy conservation and curb CO_2 emissions. From fiscal 2013, they participated in Keidanren's Commitment to a Low Carbon Society

to forge ahead with anti-global warming measures built on the pillars of: 1) Emission reductions from domestic business operations, 2) Strengthening cooperation with other interested groups by spreading low carbon products/technologies to curb CO_2 emissions throughout the supply chain, 3) Promoting contribution on an international scale by transferring Japan's chemical products and processes overseas, and 4) Developing innovative technologies over the mid- and long-term with their practical application in 2020 and beyond in mind.

How have you influenced, or are you attempting to influence their position?

We endorse the goals and initiatives by the JCIA and, as a leading player in the paint industry, cooperate with them in advancing their initiatives.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

In response to what customers want us to do to reduce GHG emissions, we are tapping into our proprietary technologies and know-how to offer solutions.
Through such initiatives, we are strengthening ties with customers and fostering their confidence in us, thus continuously reinforcing the competitiveness of our business.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In voluntary sustainability report

Status

Underway – previous year attached

Attach the document

IntegratedReport2019-p21-26.pdf

Page/Section reference

1/6 pages: Responsible Care Organizational Structure (Governance)
3/6 pages: Prevention of Climate Change (Amounts of emissions)

2/6 pages: Responsible Care Plan and Results (Priority subjects: Targets; Environmental conservation; and reduction of CO_2 emissions and energy consumption. The basic KPI is a 1% reduction per unit.)

Content elements

Governance
Emissions figures
Emission targets

Comment

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Managing Executive Officer, Chief Administrative Officer (CAO)	Other C-Suite Officer

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

Nippon Paint Automotive Coatings Co., Ltd. (NPAU) is one of the leading automotive coatings manufacturers in the world, offering a broad range of products from automotive body coatings such as e-coat coatings, intermediate coats, and base/clear coatings, to coatings for plastic components such as bumpers and interior parts. With a deep understanding of the entire process of automotive coatings and the accumulation of diverse know-how on paint application, we are contributing to the realization of a coating system capable of generating total synergies, while making the most of the characteristics of individual paints and coating films.

In order to reduce environmental impact at the automotive coating process, we are working to develop coatings and coating systems that dry at lower temperatures and more quickly and reduce VOCs, heavy metals, and other hazardous chemicals contained in coatings.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	552,000,000,000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	JP	3749400002

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

Toyota Motor Corporation

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

4,812

Uncertainty (±%)

Major sources of emissions

Kerosene, A fuel oil, liquefied petroleum gas, and city gas that are used at our plants and offices, and gasoline that is used for our automobiles (on a consolidated basis)

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

Toyota Motor Corporation

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

6,454

Uncertainty (±%)

Major sources of emissions

Purchased electricity (on a consolidated basis)

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Requesting member

Honda Motor Co., Ltd.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

1,496

Uncertainty (±%)

Major sources of emissions

Kerosene, A fuel oil, liquefied petroleum gas, and city gas that are used at our plants and offices, and gasoline that is used for our automobiles (on a consolidated basis)

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Requesting member

Honda Motor Co., Ltd.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

2,663

Uncertainty (±%)

Major sources of emissions

Purchased electricity (on a consolidated basis)

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

Honda North America, Inc.

Scope of emissions

Scope 1

Allocation level

Business unit (subsidiary company)

Allocation level detail

Only the amount of emissions exclusively from a subsidiary in the U.S. that delivers to Honda North America Inc.

Emissions in metric tonnes of CO2e

842

Uncertainty (±%)

Major sources of emissions

Kerosene, A fuel oil, liquefied petroleum gas, and city gas that are used at our plants and offices, and gasoline that is used for our automobiles (on a consolidated basis)

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

Honda North America, Inc.

Scope of emissions

Scope 2

Allocation level

Business unit (subsidiary company)

Allocation level detail

Only the amount of emissions exclusively from a subsidiary in the U.S. that delivers to Honda North America Inc.

Emissions in metric tonnes of CO2e

868

Uncertainty (±%)

Major sources of emissions

Purchased electricity

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

Nissan Motor Co., Ltd.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

523

Uncertainty (±%)

Major sources of emissions

Kerosene, A fuel oil, liquefied petroleum gas, and city gas that are used at our plants and offices, and gasoline that is used for our automobiles (on a consolidated basis)

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

Nissan Motor Co., Ltd.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

963

Uncertainty (±%)

Major sources of emissions

Purchased electricity (on a consolidated basis)

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

Iochpe-Maxion SA

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

Major sources of emissions

No applicable transactions

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

---

Requesting member

Iochpe-Maxion SA

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

Major sources of emissions

No applicable transactions

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

Integrated Reports on NPHD's website

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
We face no challenges	

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

No

SC1.4b

(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.

We have already allocated emissions to our customers at this point.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

Requesting member

Group type of project

Type of project

Emissions targeted

Estimated timeframe for carbon reductions to be realized

Estimated lifetime CO2e savings

Estimated payback

Details of proposal

We are teaming up with auto manufacturers and raw materials suppliers to develop low carbon products and shorten the coating process.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC3.1

(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?

No

SC3.2

(SC3.2) Is your company a participating supplier in CDP's 2019-2020 Action Exchange initiative?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

Japanese

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Investors Customers	Public	Yes, submit Supply Chain Questions now

Please confirm below

I have read and accept the applicable Terms