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# **Environmental**

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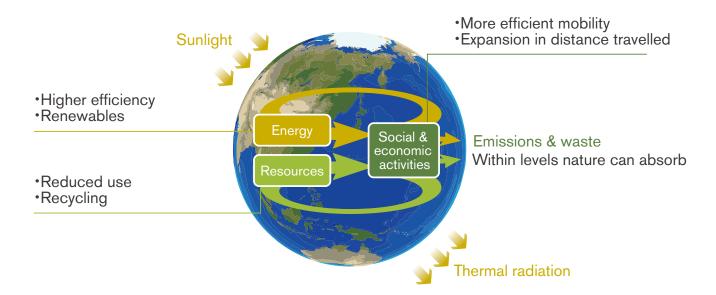
### Environmental principles

### Environmental principles and policies

We provide customers with innovative products and services by promoting the effective use of energy and resources as well as by promoting diversity and resource circularity. These are just some of the ways in which Nissan is striving to achieve its environmental philosophy: "A symbiosis of people, vehicles, and nature".

To achieve our environmental principles, we have clearly defined our ultimate goal: "To manage the environmental impact caused by our operations and products to a level that

can be absorbed by nature and pass on rich natural capital to future generations" and set what we want to be: "A sincere eco-innovator." This means endeavoring to leave as small an ecological footprint as possible for the Earth's future. Beyond deepening our awareness of the environment, we strive to conduct all business activities with consideration and kindness for people, society, nature and the Earth, as a means of contributing to the development of a better society.



### Nissan's environmental philosophy: A symbiosis of people, vehicles, and nature

In addition to deepening our understanding of the environment, we conduct all of our operations, including production and sales, with consideration for people, society, nature and the Earth, as a means of contributing to the building of a better society.

### Ultimate goal

We will reduce the environmental impact and resource consumption of our corporate operations and vehicles throughout their life cycles to a level that can be absorbed by nature and pass on rich natural capital to future generations.

### What we want to be: A Sincere Eco-Innovator

Sincere: Proactively address environmental challenges and reduce our impact on the environment.

Eco-Innovator: Develop a sustainable mobility society through innovative technology in products and services.

<sup>\*</sup> Based on Beyond Growth: The Economics of Sustainable Development, by Herman E. Daly

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### Understanding of environmental issues

Environmental and social issues have received increasing attention in recent years. Society faces various challenges, including poverty and hunger, energy issues, climate change, natural resource security, information security, and conflicts that threaten peace. These issues are also being addressed by the World Economic Forum (WEF).

In aiming to address these various challenges, Nissan recognizes that providing safe, secure, and sustainable mobility to all individuals and delivering value to society has become increasingly important.

Among these issues, climate change is viewed as a factor contributing to large natural disasters that occur frequently around the world each year, and the need to reduce the impact of climate change is now greater than ever before. In the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report released from 2021 to 2023, it was emphasized once again that there is no doubt that climate change is caused by human activities, and that urgent and enhanced measures are needed without delay to limit the global average temperature rise to 1.5°C.

At the 28th Conference of the Parties (COP28) of the United Nations Framework Convention on Climate Change (UNFCCC) held in December 2023, ambitious targets were proposed to address climate and biodiversity issues. These targets included concrete action plans aimed at halting the loss of nature, reversing current conditions, and promoting the rapid phase-out of fossil fuels by 2030 to achieve the global goal of resolving climate and biodiversity issues. At COP29 held in 2024, agreement was reached on the full implementation of Article 6 of the Paris Agreement, which enables international cooperation on emissions reductions as well as carbon removal and absorption measures. At the 15th meeting of the Conference of the Parties to the Convention on Biological Diversity (COP15) held in December 2022, the Kunming-Montreal Global Biodiversity Framework, which sets out international targets for biodiversity conservation, was adopted. At the subsequent COP16, a framework for monitoring its implementation was discussed.

The automotive industry uses a variety of resources, including steel and aluminum, to manufacture vehicles. Moreover, the utilization of scarce and unevenly distributed valuable resources, such as lithium and nickel, has been expanding due to recent electrification. The automotive industry not only depends on the global environment but also impacts it throughout the entire value chain. Nissan is committed to sustainability initiatives that mitigate climate change and conserve energy, preserve air quality and other natural capital, use mineral resources efficiently, properly manage chemical substances, efficiently allocate scarce resources and promote good health. In addition, we are pursuing business structure reforms enabling us to move away from dependence on fossil fuels.

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Global environmental management governance

management governance

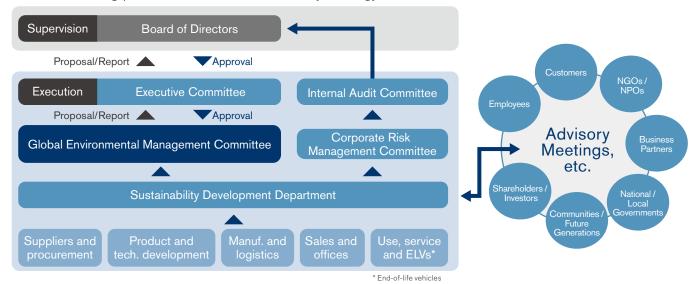
To promote comprehensive environmental management as a global company while responding to a diverse array of environmental issues, Nissan has a governance framework built on dialogue and partnership with each region and many corporate functions as well as stakeholders.

The Global Environmental Management Committee (G-EMC), determines overall policy and the content of reports before the Board of Directors. The relevant corporate officers attend this committee to cover the whole value chain. Executives also clarify risks and opportunities and determine the specific programs to be undertaken by each division, using PDCA cycles to manage the environmental programs efficiently.

Resolutions made by the G-EMC are reported via the Executive Committee to the Board of Directors, which is responsible for supervising the committee.

In parallel, climate change issues are discussed at Corporate Risk Management Committee meetings and regularly reported to the Board of Directors through the Internal Control Committee. At the front-line level, risk management is enhanced through the acquisition of ISO 14001 certification at major global sites.

We actively communicate with a broad range of stakeholders through our sustainability data book and by answering inquiries from various environmental ratings agencies. Decision-making process related to sustainability strategy



Organization	Role	Matters to be resolved	Meeting frequency
Global Environment Committee (G-EMC)	Delegation of authority (DOA) from the Board of Directors to make resolutions on company-wide environmental policies, etc.	Clarification of risks/opportunities related to environmental topics Progress management of targets Examples of topics covered: Climate change, nature dependence, air quality and water, nature-related issues, including biodiversity, etc.	Twice a year

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### Climate change in executives' performance-based cash incentives

Since fiscal year 2021, the company has incorporated the performance indicators for sustainability in performancebased cash incentives\*1 that form a part of the executives' long-term incentive program to increase its medium- to long-term corporate and social value. In fiscal year 2024, those performance indicators and evaluation weights were reviewed and updated to strengthen the climate changerelated initiatives.

FY2021 - FY2023 An external evaluation on carbon neutrality (evaluation weight 5%).

<New>FY2024 - A CO2 performance score covering the entire value chain based on emission reductions\*2 across seven areas of NGP activities (evaluation weight 10%).

### Enhancing environmental management based on ISO 14001

Nissan has obtained ISO 14001 certification at its major manufacturing plants and other non-manufacturing sites around the world.

In Japan, product development processes and all major facilities, including Global Headquarters, research and development, production, and logistics, have also obtained ISO 14001 certification.

The assigned environmental management officer coordinates companywide goals and shares the goals with the employees through local offices. Local offices are responsible for the activities at each facility and division and for coordinating the proposals submitted by employees. By engaging in discussions at least once a month, the ISO secretariat and local offices confirm progress toward established goals, share best practices, improve management systems, develop plans for the next fiscal year, and communicate requests from local facilities and divisions. The items discussed are reported to the environmental management officer twice a year (once at the management review conference) to enhance overall management.

We periodically conduct third-party audits to confirm that management is functioning appropriately. We also conduct internal audits of areas covered by third-party audits and all other environmental activities, prioritizing compliance with regulatory reporting requirements and identifying and assessing risks.

#### Working with consolidated production companies

We encourage our consolidated production companies in a variety of markets to acquire ISO 14001 certification and to undertake other environmental initiatives based on their respective policies.

#### Working with dealerships

We believe that concern for the environment at our dealerships is essential to earning the trust and appreciation for Nissan's environmental efforts.

Our dealerships in Japan have introduced an original approach to environmental management based on ISO 14001 certification called the "Nissan Green Shop" certification system. This program is managed through internal audits conducted by the dealerships every six months. This program also includes annual reviews and certification renewal audits conducted every three years by Nissan Motor Co., Ltd. (NML). As of the end of March 2025, the system has certified approximately 2,700 dealerships of 147 dealers, including parts dealers, as Nissan Green Shops. Certified dealers introduce and actively share their environmental initiatives with customers.

#### Raising environmental awareness among employees

Nissan's environmental activities are supported by the environmental knowledge, awareness, and competence of each employee. As part of our ISO 14001 activities, we provide Nissan employees and the employees of partner companies working in our offices and plants with education aimed at reducing CO<sub>2</sub> emissions, energy and water consumption, and waste with the aim of achieving carbon neutrality based on the Nissan Green Program 2030 (NGP2030). We also provide annual training to prevent environmental accidents.

In addition to education and training, quantitative evaluations of all employees are conducted at plants to develop human resources able to continuously improve their competence

<sup>\*1</sup> Click here for the social indicator. >>> P010

<sup>\*2</sup> Click here for more information on CO<sub>2</sub> emission reductions in the seven areas of NGP activities >>> P007

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and reduce environmental risk. The training curriculum is reviewed annually to ensure that employees acquire the necessary competencies.

In Japan, we provide orientation for new employees and compliance training for new supervisors and executives to promote an understanding of NGP2030 and the environmental issues related to the automotive industry. We also share new information on environmental initiatives with our employees through an in-house portal site. Outside Japan, we share information not only through the inhouse portal site but also by means of videos, events, and other locally appropriate tools. These efforts aim to raise awareness and share information with all our employees.

# Nissan's voluntary operational standards

Stricter controls on environment-impacting substances are being implemented in countries around the world. Examples include the European End-of-Life Vehicles (ELV) Directive, the European Union's Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation, which went into effect in June 2007, and Japan's Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture.

This program utilized the VOC guidance value established by the Ministry of Health, Labour and Welfare for specific substances in January 2002. This value has had to be met for all new models manufactured or sold by Nissan in Japan after April 2007. In accordance with the Ministry's guidance value revision in January 2019, new guideline values have been met for new models released in 2022 or later. Nissan is strengthening its management of chemical substances, adhering to a planned schedule for their reduction and advancing the use of alternative substances. In 2005, we drew up policies regarding the use of substances scientifically recognized as being hazardous or carrying high

hazard risks, as well as those identified as dangerous by NGOs. In 2007, these policies, which restrict environmentimpacting substances even more than the domestic laws of the countries where we operate, were rolled out globally. Based on the above-referenced policies, Nissan developed a specific Nissan Engineering Standard (NES) for the Restricted Use of Substances, which identifies the chemical substances whose use is either prohibited or controlled. The NES is applied in material selection and also in the components and parts used in our vehicles from initial development onward. For example, four heavy metal compounds (mercury, lead, cadmium, and hexavalent chromium) and the polybrominated diphenyl ether (PBDE) flame retardant have been either prohibited or restricted in models\*1 launched globally since July 2007. Every year, we revise the Restricted Use of Substances standards to reflect changes in international laws and regulations and to add new substances covered by our voluntary internal standards. In the revision for fiscal year 2017, we established criteria for proactively reevaluating hazards and risks related to regulations to enhance compliance levels. For example, we disclose information to users and submit REACH reports to the relevant authorities regarding the vehicles and parts produced in or exported to Europe from Japan and other countries, including some from the U.S.A. We also comply with Classification, Labeling and Packaging of Substances and Mixtures regulations.

# Sanctions and government guidance at Nissan production facilities

With regard to our environmental management system activities in fiscal year 2024, there were no significant violations of environmental laws or government sanctions imposed. However, there were cases in which an agreed-upon limit was exceeded. We coordinated with authorities to take appropriate corrective actions and implement recurrence prevention measures.

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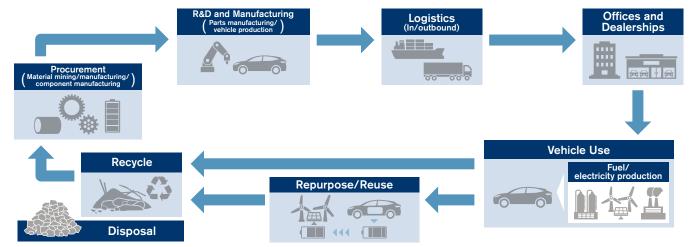
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### Strategic approach to environmental issues

To solidly contribute to resolving global environmental issues, Nissan engages in direct discussions with environmental experts, investors, NGOs, NPOs, and other organizations globally, analyzing potential opportunities and risks. As a global automotive manufacturer, we consider not only corporate activities but also those upstream and downstream as part of our corporate responsibility. Our scope of analysis covers the entire value chain, from the procurement of raw materials for vehicles to transportation, disposal, recycling, and product use, including suppliers. We determined that including both upstream and downstream activities within the scope of impact is essential, based on a comparison with the sectoral guidance on dependencies and impacts provided by ENCORE\*1.

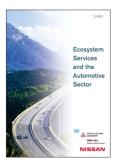
Based on this analysis, we identified materialities\*2 that we should address and have identified Climate change, Resource dependency, Air quality and Water as important areas to focus on as Nissan's mid-term to long-term environmental strategy. Specific action plans\*3 were established through 2030 to target these key areas. Recognizing that the key areas identified are interconnected, and by addressing them comprehensively, Nissan will also contribute to solve the challenges of nature-related issues, including biodiversity. We will also assess impacts associated with the transition to decarbonization and promote activities that focus on achieving a just transition without adverse impacts to achieve carbon neutrality.

#### Nissan Value Chain



### Initiatives for nature-related issues

The Millennium Ecosystem Assessment carried out between 2001 and 2005 pointed out that the world's ecosystems have declined more rapidly and extensively over the past 50 years than at any other time in human history. In response, Nissan has been evaluating its impact on and dependence on nature throughout its entire value chain, from the mining of material resources to the production and operation of vehicles. Together with the United Nations University, Nissan utilized the Corporate Ecosystem Services Review\*4 methodology in conducting research to ascertain the impact and dependency that its own corporate activities have on ecosystems. The findings of that research were published in the 2010 report entitled Ecosystem Services and the Automotive Sector (ESAS)\*5. These are also reflected in materiality decisions and incorporated into specific actions as Nissan Green Program (NGP) policies and strategies. Additionally, Nissan is participating in the Keidanren Initiative for Biodiversity Conservation.



- \*1 Click here for more information on ENCORE. https://www.encorenature.org/en
- \*2 Click here for more information on sustainability materiality, including the environment. >>> P004
- \*3 Click here for more information on Nissan's medium-term environmental action plan (NGP2030) >>> P024
- \*4 Developed by the World Resources Institute (WRI) in cooperation with the World Business Council for Sustainable Development (WBCSD) and the Meridian Institute based on the UN Millennium Ecosystem Assessment (MA).
- \*5 Click here for more information on "Ecosystem Services and the Automotive Sector". https://www.nissan-global.com/EN/DOCUMENT/PDF/ENVIRONMENT/SOCIAL/ecosystem\_services\_and\_the\_automotive\_sector.pdf

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#### About the TNFD



At COP15, which was held in 2021 and 2022, a clear direction was set for a nature-positive approach which is to halt, reverse, and restore biodiversity loss by 2030. In addition the Task Force on Nature-related Financial Disclosures (TNFD), an international organization that develops risk management and disclosure frameworks for companies regarding natural capital and other related matters, published its final recommendations in 2023. These recommendations outline a framework for evaluating the relationship between corporate activities and nature as well as for disclosing appropriate information.

Nissan endorsed the TNFD's recommendations and joined the TNFD Forum to support its activities. Since fiscal year 2024, Nissan has been preparing for disclosures based on the TNFD recommendations. Having obtained approval from executives at the Global Environmental Committee regarding the disclosures based on the TNFD and expansion plans, we registered as a TNFD Adopter in January 2025. We are

also strengthening our disclosures related to governance and other areas in accordance with the disclosure recommendations.\*1

#### About LEAP\*2 analysis

Based on the LEAP analysis recommended by the TNFD, we analyzed our business activities in terms of their impact on and dependence on nature as well as related opportunities and risks.

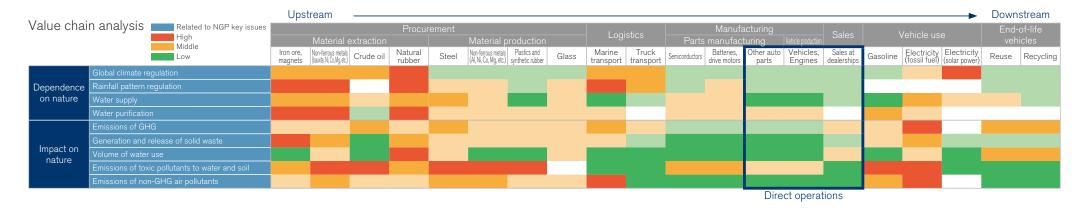
In the Evaluate process of LEAP analysis, we used ENCORE\*3 to conduct an analysis to identify and evaluate comprehensive nature-related issues in the value chain. This analysis covered the entire value chain, from material resource extraction to vehicle production and usage, evaluating the impact on and dependence on nature through key materials, parts, and processes across six phases: procurement, logistics, production, sales, vehicle use, and disposal.

Subsequently, Nissan conducted a detailed analysis focusing on its primary responsibility of direct operations using the

WRI Aqueduct Water Risk Atlas\*4, Integrated Biodiversity Assessment Tool (IBAT\*5) and the WWF Water Risk Filter\*6. As a result, it was confirmed that areas with significant impact on and dependence on nature are addressed as key issues in the NGP and its objectives related to resource and water cover the main measures related to nature (see figure below).

Nissan has been assessing and addressing its impact on and dependence on nature ahead of the TNFD, and we have confirmed that the NGP content is consistent with the TNFD and that the NGP is effective in addressing natural issues. Nissan will continue to address nature-related issues in areas closely related to its business (climate change, resources, air quality, and water) and promote activities aimed at achieving the NGP objectives.

Going forward, we will expand the detailed analysis of LEAP to the value chain, identify impact and dependencies, risks, and opportunities, particularly in the upstream areas where risks are high, and consider specific countermeasures.



<sup>\*1</sup> Click here for more information on "TCFD/TNFD index". https://www.nissan-global.com/EN/SUSTAINABILITY/LIBRARY/SR/2025/TCFD/

<sup>\*2</sup> An integrated approach for assessing nature-related issues, including the process, connection, dependence, impact, risk, and opportunities related to nature, as recommended by TNFD. After scoping, the approach consists of four steps: Locate, Evaluate, Assess, and Prepare.

<sup>\*3</sup> An online tool to help investigate nature-related risks and understand dependencies and impacts https://encorenature.org/en

<sup>\*4</sup> Click here for more information on the Aqueduct Water Risk Atlas. https://www.wri.org/aqueduct

<sup>\*5</sup> Click here for more information on IBAT. https://www.ibat-alliance.org

<sup>\*6</sup> Click here for more information on the WWF Water Risk Filter. https://riskfilter.org/water/home

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### Climate change scenario analysis to strengthen strategies for 2050 society

In 2015, the 21st Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC) adopted a framework (the Paris Agreement) aimed at limiting global temperature increase to "well below" 2°C.

COP26 in 2021 announced its resolution "to continue efforts to limit temperature rise to 1.5°C" to emphasize 1.5°C restriction, while adding the "reduction of global carbon dioxide emissions to virtually zero by mid-century." Similar to the Paris Agreement, the Sustainable Development Goals (SDGs) adopted by the United Nations in 2015 also called for concrete measures to address climate change.

Nissan's efforts toward the environment have achieved continuous results by consistently reaching milestones backcasted from our long-term vision. However, compared with 2006, when we formulated the long-term vision based on the 2°C scenario from the Intergovernmental Panel on Climate Change (IPCC) report, the threat of extreme weather due to climate change is increasing, and we believe it is necessary to enhance our strategy and make it more resilient amid growing uncertainties.

The scenario analysis conducted for the purpose of strategic enhancements assume societies based on the 4°C and 2°C scenarios presented in the International Energy Agency (IEA) time horizon up to 2050 and the 1.5°C scenario in the IPCC special report. Furthermore, in consideration of factors including changes in customer and market acceptance, tightening automobile regulations and the transition toward clean energy, Nissan's business activities, products and services were examined in terms of strategic resilience to climate change opportunities and risks in the following four steps.

#### Steps for review

- 1 Evaluate past materiality, investigate risk factors with a decisive impact on the automotive sector due to climate change in documented studies and define main drivers in categories, such as population, economy, geopolitics, climate change policy and technology.
- 2 Categorizing main drivers into physical risks and transition risks, then considering the trade-off relationships of each, we examined the rise in the Earth's average temperature in three scenarios of 1.5°C, 2°C, and 4°C, and confirmed the range of risks for the 1.5°C and 4°C scenarios based on a 2°C reference scenario.
- 3 Based on the degree to which the automobile sector was impacted and the timeline, items with a more substantial impact were screened from the main drivers.
- 4 Changes, conditions, and effects were adjusted in each scenario to provide guidance based on qualitative evaluation of the elements necessary for enhancing strategies.

As shown on the next page, Nissan operates as a global automotive company, with production facilities and product offerings in over 170 markets worldwide. Therefore, we have considered scenarios where infrastructure, regulations and actual usage vary across markets. As a result of verifying these assumptions, we have recognized that Nissan's electrification and other initiatives have the potential to create opportunities for effective capabilities under all scenarios (1.5° C/2° C/4° C). This demonstrates the company's resilience and is likely to create further opportunities. Therefore, we will accelerate our efforts to implement these technologies.

In particular, activities integrated with the supply chain are essential for responding to risks.

If climate change countermeasures are delayed across society as a whole, possible risks include increased policy and legal regulations for a decarbonized society, increases in R&D efforts, transition risks due to changes in market

demand and corporate reputation, and physical risks such as an increase in extreme weather and rising sea levels. Each of these risks may lead to cost increases and declines in vehicle sales that could significantly impact our financial situation. To mitigate these risks as much as possible and create future opportunities, Nissan will accelerate the implementation of strategies that enhance resilience by translating insights gained from scenario analysis into concrete actions. In addition, the expansion of zero-emission vehicles is not only a major step toward the shift to a carbonfree society as an automobile sector, but also a technology that contributes to the resilience of society in power management and disaster preparedness and mitigation. Nissan believes this will create value for society and business. We believe it is important to clearly and accurately communicate these impacts and the strategies considered to investors and other stakeholders. Nissan supports the TCFD's recommendations and will strive to disclose information in line with its recommended framework.

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### Envisioned climate change scenarios and assessment of opportunities and risks

Scenario	Area of impact	Category	Business activity opportunities and risks related to climate change	Time frame*1	Financial impact*2	Value chain segments affected	NGP2030 activities	Details of initiatives
	Policies and	Transition risks	Complying with a further tightening of vehicle fuel efficiency and exhaust gas regulations may have an impact on the development of electric powertrain technologies and production costs and may influence production costs	Medium to long term	High	R&D Manufacturing Vehicle use	Climate change Air quality	<ul> <li>Establishing a sustainable society using electrified vehicles (P034~)</li> <li>Compliance with air quality emissions regulations (Passenger cars only) (P043~)</li> <li>Air quality: Achievements (P058~)</li> </ul>
	regulations	Transition risks	Increased burden of energy costs due to expansion of carbon taxes, expand investment in energy-saving equipment as policy	Medium to long term	High	R&D Manufacturing Logistics Offices and dealerships	Climate change	· Carbon neutrality roadmap at production plants, Nissan Intelligent Factory (P045)
1.5℃	Transiti risks  1.5°C Technological		Cost effects of utilizing next-generation vehicle technologies such as in-vehicle batteries and other EV-related technologies as well as expanding autonomous driving technologies	Medium to long term	High	R&D Manufacturing	Climate change	Next-generation battery (P036)     ProPILOT Assist - advanced driver assistance technology (P073)
	changes	Transition risks	Increased demand for rare earth metals used for in-vehicle battery materials will affect supply chains and cause an increase in stabilization costs	Medium to long term	Medium	Procurement	Expand sustainable material Secure responsible sourcing	<ul> <li>End-of-life vehicle recycling, Reuse of rare earth (P055)</li> <li>Secure responsible sourcing (P031~)</li> </ul>
	Market	Transition risks	Changes in consumer awareness leads to reduced new vehicle sales due to the selection of public transportation and bicycles and the transition to mobility services	Medium to long term	Low	R&D Manufacturing Vehicle use	Climate change Vehicle usage	· Proof-of-concept experiment for community development using new mobility (P091)
	changes	Opportunities	Expand the provision of power management opportunities with Vehicle to Everything (V2X), an EV energy charging/discharging technology, and redefine the value of EV, especially with Vehicle to Grid (V2G)	Medium to long term	Low to Medium	R&D Manufacturing Vehicle use	Expansion of energy management functions	· Energy ecosystem utilizing EVs (P040) · Introduction of Vehicle to Grid (V2G) technology in the U.K. (P041)
4°C	Extreme	Physical risks	The impact on the supply chain and the operation of production bases due to extreme weather such as heavy rain and drought will increase property insurance costs and air-conditioning energy costs	Short to long term	High	Procurement Production	Climate change Enhance water risk management at manufacturing sites	· Risk management systems (P131) · Water-related achievements (P057)
wea	weather	Opportunities	The need for securing emergency power sources using EV batteries is increasing as a disaster preparedness and mitigation measure	Short to long term	Low to Medium	Development Vehicle use	Expansion of energy management functions	· Blue Switch Program (P091)

### **Envisioned climate change scenarios**

The envisioned scenarios were based on the IEA's NZE\*3 scenario report, the IPCC's representative concentration pathways (RCP), and shared socio-economic pathways (SSP).

- 1.5°C scenario (1.5 DS): Ambitious mitigation measures are indispensable, but in the long term, a transition to a sustainable society is necessary. References: IEA NZE scenario, IPCC Special Report 1.5
- · 4°C scenario (4 DS): Climate change impacts become severe and widespread, forcing adaptation measures, and abrupt mitigation measures are required as impacts become apparent. Reference: IPCC RCP 8.5, IPCC SSP 3

<sup>\*1</sup> Occurrence time frames: Short term (up to one year), medium term (up to three years), and long term (three years or longer)

<sup>\*2</sup> Degree of impact on sales

<sup>\*3</sup> NZE: Net-Zero Emissions

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### Financial impact assessment of carbon tax effects

In fiscal year 2021, we conducted a financial impact assessment, based on the scenario analysis that we had already disclosed.

Below are the results of our assessment of the impact of carbon taxes.

### Background to financial impact assessment scenario selection

Pricing for CO<sub>2</sub> emissions is progressing, and an increasing number of countries and regions are introducing carbon taxes. Although the level of taxation and the industries subject to the tax vary by country and region, this analysis will focus on the financial impact of the carbon taxes due to their significant impact on companies.

### Evaluation of calculation methods and estimated taxes, assumptions

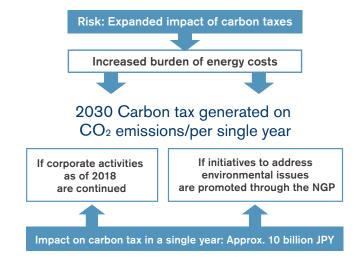
In our calculations, we referred to the IEA report and other reports on carbon taxes as the basis for our carbon tax projection.

The carbon tax on GHG emissions in 2030 was calculated by comparing cases where:

- 1) Corporate activities as of 2018 have been continued, and
- The Nissan Green Program promotes environmental activities and the impact of annual carbon tax could be curbed

#### Impact on business outlook

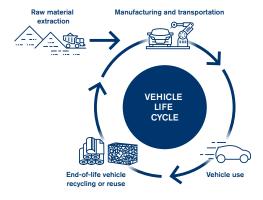
We estimated that the carbon tax impact of Scope 1 and 2 could be kept to approximately 10 billion JPY if the environmental issues addressed in the Nissan Green Program were implemented, compared with the case where GHG emissions were not reduced.



# Life cycle assessments to reduce environmental impact

Nissan identifies potential risks by conducting life cycle assessments (LCA)\*1. The LCA method is used to quantitatively evaluate and comprehensively assess environmental impact, not only during vehicle use but at all stages, including raw material extraction, manufacturing and transport as well as reuse or end-of-life vehicle recycling. Our LCA methods were certified by the Japan Environmental Management Association for Industry from 2010. Since 2013, we have switched to certification by the third-party organization TÜV Rheinland in Germany, with the certification being renewed in December 2023. The latter certification is based on ISO 14040 and ISO 14044 standards and validates. the environmental impact calculations in our product LCAs. We have been expanding the application of the LCA method and enhancing our understanding of the environmental impact of our products especially of our best-selling models worldwide in quantitative terms. Coverage on a unit basis has reached approximately 80% of global models and approximately 90% in Europe.

Through the continuous implementation of LCA, we will promote the visualization and reduction of environmental impacts throughout the vehicle life cycle.



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### Key issues and challenges of Nissan Green Program (NGP) medium-term environmental action plan

We first formulated the Nissan Green Program (NGP) medium-term environmental action plan in 2002 to achieve our environmental philosophy of "a Symbiosis of People, Vehicles, and Nature".

This plan aims to ultimately reduce our environmental dependence and impact to levels that nature can absorb toward the ultimate goal of creating value from making a positive impact on the environment.

The fifth-generation NGP2030 plan, formulated in fiscal year 2023, is strengthening and promoting activities toward the realization of a sustainable and harmonious society with nature. Based on materiality analysis, climate change, resource dependency and air quality and water have been identified as important issues under NGP2030. We are committed to addressing these three key issues from a longterm perspective, taking into account both compliance and social demands. To contribute to the resolution of these important issues and create new value, we are working to ascertain needs through stakeholder engagement and strengthening our foundations related to environmental issues. In setting climate change targets, we estimated long-term CO<sub>2</sub> reduction volume based on the latest Intergovernmental Panel on Climate Change (IPCC) reports and set targets using backcasting based on the climate change scenario analysis described above. We will disclose indicators and

progress related to material issues every year. Nissan will accelerate efforts to address environmental issues across the entire company, including development and manufacturing departments involved in vehicle manufacturing as well as sales and service departments.

### **Evolution of NGP**



### NGP2030 key issues



Toward the goal of carbon neutrality by 2050, strive for electrification potential and Monozukuri innovation.

### NGP2030 CO<sub>2</sub> reduction objectives (compared with FY2018)



\*Japan, The U.S.A., Europe, China



Drive circular economy by efficient and sustainable use of resources, and by creating a system that maximizes the use of mobility

### NGP2030 Objectives



40% (Japan, U.S.A., Europe, China)

Maximizing use of vehicles as resources

Ratio of new EVs with energy management functions

100% (Japan, U.S.A.,)



Zero impact / zero risk

Reduce water usage and manage water quality in response to the regional issues, and reduce the impact on air quality by minimizing emissions from cars and corporate activities.

### NGP2030 Objectives



Zero high-risk sites

#### Air quality

- Enhance management of vehicle emissions, including non-tailpipe
- emissions
- Manage VOCs\* at manufacturing sites Manage in-cabin air quality

\*Volatile Organic Compounds

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### Climate change

# Nissan's initiatives toward achieving a carbon-neutral society

The business structure of the automobile industry is undergoing significant changes in response to the demands for reducing CO<sub>2</sub> emissions and transitioning away from dependence on fossil fuels. Nissan has declared the goal of carbon neutrality by 2050 and is focusing on the electrification of products and innovation in corporate activities, working in collaboration with suppliers to promote activities toward achieving this goal.

As renewable energy and charging infrastructure expand, we will continue to promote the electrification of products and pursue the sustainability of our business activities to realize a carbon-neutral future.

NGP2030 involves actively working toward achieving the 1.5°C scenario by accelerating efforts to address climate change. The plan focuses on reducing CO<sub>2</sub> emissions, implementing electrification technologies, and creating environmental responsiveness and social value.

## Efforts to reduce CO<sub>2</sub> emissions across entire product life cycles

Nissan is actively working on reducing CO<sub>2</sub> emissions across the entire life cycles of its vehicles.

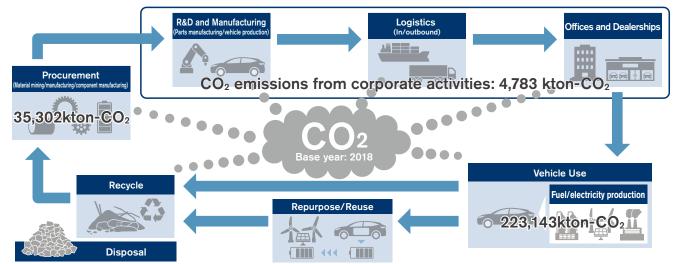
We are promoting the development of new technologies and the introduction of renewable energy in the entire value chain, including suppliers, to achieve CO<sub>2</sub> reduction at every stage, from raw material extraction to manufacturing, transportation, product use, and disposal.

Nissan promotes CO<sub>2</sub> reductions in all areas of business

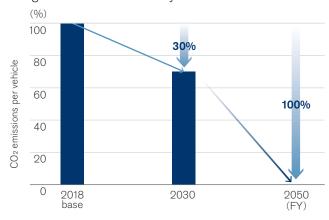
activity, including procurement, manufacturing, logistics, offices, and dealerships and products. Under NGP2030, we set the target of a 30% reduction in CO<sub>2</sub> emissions by 2030 across entire product life cycles.

CO<sub>2</sub> emissions over the life cycles in fiscal year 2024 were reduced by 12% compared with fiscal year 2018.

### Life cycle CO<sub>2</sub> emissions



### Long-term vision for life cycles



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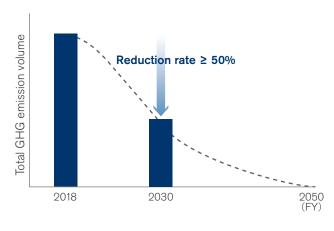
### Initiatives through corporate activities Approach to corporate activity initiatives

In 2018, the IPCC Special Report on Global Warming of 1.5°C indicated the necessity of limiting the global average temperature rise to 1.5°C above pre-industrial levels and achieving net zero emissions by 2050.

Based on the IPCC report, Nissan has estimated that it will need to reduce its total CO<sub>2</sub> emissions (Scope 1 and 2) by at least 50% by 2030 (compared with 2018 levels).

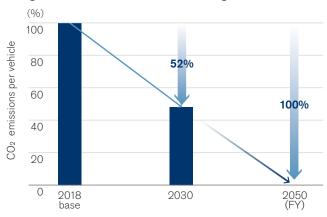
Aiming to achieve the 1.5°C target, in the corporate activities under NGP2030, we have set targets for reducing  $CO_2$  emission intensity in various areas, including manufacturing, offices, and dealerships.

### Long-term vision for Scope 1 and 2



Particularly in manufacturing activities, which account for approximately 90% of Scope 1 and 2 emissions, we have calculated that a 52% reduction per vehicle (compared with 2018) is required by 2030 (compared with 2018) and have incorporated this target into the NGP.

### Long-term vision for manufacturing activities



Regarding activities toward achieving this target, Nissan will first minimize energy consumption through the measurement and management of energy use and energy-saving activities. Nissan promotes the electrification and substitution of fossil fuels with carbon-free energy for our manufacturing facilities. We will also promote technological development to create further opportunities to achieve the 1.5°C target.

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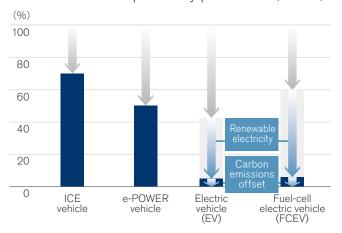
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# Initiatives through products Approach to climate change

 $CO_2$  emissions from new vehicles (use stage) accounted for more than 80% of total life cycle emissions as of 2024. To minimize this impact, Nissan is committed to developing and continuing to provide vehicles with lower  $CO_2$  emissions to its customers.

### CO<sub>2</sub> emissions comparison by power train (WtW\*1)



After implementing maximum  $CO_2$  emission reduction initiatives, Nissan will consider applying offsets to mitigate the unavoidable  $CO_2$  emissions, aiming to achieve our life cycle  $CO_2$  emission targets.

### Product initiatives for climate change

Nissan is promoting electrified vehicle innovation through a variety of technological advances to reduce the environmental impact of its products. We also aim to optimize our electrification model mix and offer a balanced product lineup that align with diverse customer preferences and the pace of electrification in each market. The vehicle electrification technologies will be applied not only to passenger cars but also to commercial vehicles. Through the provision of innovative products, Nissan will continue to seek further advances in sustainability as one of its business foundations.



### Product CO<sub>2</sub> emission reduction scenarios

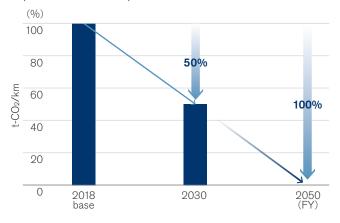
#### Long-term vision

We aim to achieve carbon neutrality in the vehicle life cycle and all business activities by 2050.

#### NGP2030 objectives

By 2030, we aim to reduce CO<sub>2</sub> emissions from new vehicles by 32.5% globally and 50% in the four regions, compared with 2018 levels.

### CO<sub>2</sub> emissions from new vehicles (Four regions: Japan, U.S.A., Europe and China)



<sup>\*1</sup> Nissan is aiming to reduce WtW (well to wheel) CO<sub>2</sub> emissions which are from the production of fuel to driving on tires.

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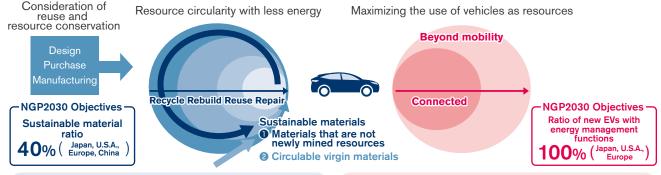
# Resource dependency Approach to resource dependency

Nissan aims to incorporate the circular economy into its business by efficiently and sustainably utilizing resources throughout a vehicle's entire life cycle while maximizing the value provided to customers and society.

### Nissan's circular economy

### Approach to sustainable materials

Nissan defines sustainable materials as those that meet sustainability requirements, namely "materials that are not newly mined resources (1)" and "virgin materials that can be continuously circulable (2)." We are working to expand the use of these materials. By promoting their use in new vehicles and replacement parts, we aim to ensure and expand the use of sustainable materials going forward.



### Resource circularity with less energy

Nissan promotes reuse and the saving of resources from the design, purchase, and manufacturing phases. We continuously work on using recycled materials, the proper management of chemical substances, and the reductions of vehicle weight. To use resources effectively with less energy, we continue to expand the application of recycled materials to new vehicles, the use of recycled parts for customer repairs and replacements, and EV batteries in secondary applications. Furthermore, we will promote the adoption of circulable materials for cases using new materials as well, toward future sustainable resource circularity.

### Maximizing the use of vehicles as resources

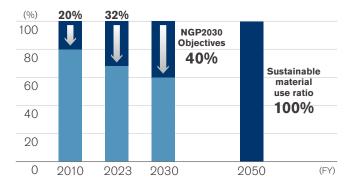
Nissan aims to maximize vehicle usage as mobility through new services such as ride-sharing when driving, and as energy sources sharing battery power with homes and society when parking.



### Sustainability requirements\*2

- · Low CO<sub>2</sub> materials
- · Non-toxic materials
- · Ethically sourced materials

### Sustainable material long-term vision Ratio of sustainable material



### Approach to energy management

By sharing the electricity from EV batteries with homes and society during parking, EVs can contribute to society by effectively utilizing vehicles as resources, as well as supporting local energy supply through electricity bill savings, the local generation and consumption of renewable energy, and providing emergency backup power and so on. To share electricity, EVs need energy management functions such as bidirectional charging and telematics communication. And Nissan aims to equip all new EVs with energy management functions by 2030.

<sup>\*1</sup> Recycled materials, biomaterials, etc.

<sup>\*2</sup> Click here for more information on "Sustainability requirements" https://www.nissan-global.com/EN/SUSTAINABILITY/LIBRARY/GREEN\_PURCHASING/

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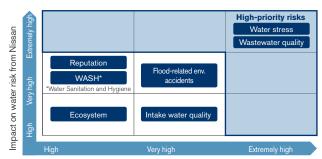
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### Water

### Approach to water management

Driven by rising populations and economic development, demand for water will continue to increase globally. With rain patterns also changing due to extreme weather events, the stability of water supplies is likely to become a more pressing social concern with every passing year.

Nissan needs to use a large amount of water primarily for painting and cleaning processes, and for cooling purposes. We analyzed the materiality of water risks that Nissan should address from two aspects, "Impact on water risk from Nissan" and the "Impact on Nissan from water risk", identifying "water stress" and "wastewater quality" as key priorities. Nissan will continue to reduce its impact on and dependence on local water environments where it conducts business, while reviewing water risk assessments annually for priority risks and regularly for other risks.



Impact on Nissan from water risks

Water is an unevenly distributed resource, and we recognize it as a highly contextual issue. Nissan prioritizes activities to reduce water usage, such as recycling wastewater and making effective use of rainwater, in areas with high water stress, while also contributing to addressing local water issues.

#### Long-term vision

Reduce the number of manufacturing sites with water risks to zero by 2050.

#### NGP2030 objectives

Reduce the number of manufacturing sites with high water risks (high-risk sites) to zero.

- · Reduce water usage at manufacturing sites
- · Manage wastewater quality at manufacturing sites

### Managing water usage

#### Water stress analysis



As the amount of usable water varies greatly depending on the basin where our manufacturing sites are located, we assess water stress at all global manufacturing sites. NGP2030 also prioritizes efforts to reduce water usage by designating sites with high water stress having a significant impact on our business as high-risk sites. Additionally, we continue water usage reduction at all sites, not just those with high water risks.

- Water stress on all global manufacturing sites is assessed based on baseline water stress indicators at the river basin level from the Aqueduct Water Risk Atlas along with internal expertise.
- · The impact on business is evaluated based on production volume.

### Wastewater quality management

The quality of wastewater can affect the amount of water available for use, especially in areas with limited water resources, which increases its significance.

At Nissan's main manufacturing sites, we implement wastewater treatment in accordance with stricter standards than local regulations to ensure compliance with wastewater quality management laws.

#### Example of water quality management initiatives

- At manufacturing sites in Japan, we have installed water quality sensors in the drains of wastewater treatment facilities and introduced systems that automatically stop discharging wastewater outside the sites if any problems are detected, thereby augmenting the prevention of water pollution.
- Processing recycled water using reverse osmosis (RO) membranes has allowed some manufacturing sites to achieve zero wastewater discharge.

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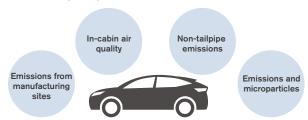
### Air quality

### Approach to air quality

Nissan approaches air quality by focusing on two points: lower emissions from vehicle tailpipes and manufacturing activities, and providing a pleasant in-cabin environment to customers. In this way, we will strive to show consideration for ecosystems while pursuing mobility that provides more comfort and security to customers.

According to the State of Global Air 2018 report issued by the Health Effects Institute (HEI) in the U.S.A., 95% of the world's population was living in regions where particulate matter smaller than 2.5  $\mu m$  (PM2.5) exceeds the 10  $\mu g/$  m³ basic level specified by World Health Organization (WHO) Air Quality Guidelines. In addition, the Euro 7 emission regulation planned for enforcement in Europe will include vehicle tailpipe emissions, as well as the reduction of particulate matter emissions from brakes, tires, and other components. Nissan will expand the scope of its responsibility for air quality to align with global regulatory trends. By reducing all emissions from vehicles and manufacturing, Nissan aims to minimize impacts on local nature and human health.

### Nissan air quality initiatives



#### Long-term vision

Minimize impact on air quality from vehicles and manufacturing

#### NGP2030 objectives

Activities	Objectives	
Enhance management of vehicle emissions, including non-tailpipe emissions	Technology development and adoption	
Manage in-cabin air quality	Comply with Nissan standard on in-cabin VOCs*1	
Manage VOCs at manufacturing sites	Continue current activities (paint shops)	

### Reduction of emissions from vehicles

To reduce emissions within and outside vehicles, Nissan is engaged in the following activities.

### Managing and improving out-cabin air quality

- · Promoting zero-emissions vehicles (EVs)\*2
- · Enhancing internal combustion engines\*2
- $\cdot$  Reduction of non-tailpipe emissions and particulates Nissan has begun exploring technologies to comply with the next proposed European emission regulation, Euro 7, in terms of particulate emission from brake wear etc.

### Managing and improving in-cabin air quality

In addition to cleaner vehicle emissions, we are also conducting research and development on improving the in-cabin environment, including air quality, to make it more comfortable for passengers. Under NGP2030, we established Nissan's standards, which are in accordance with the laws and guidelines of each country regarding in-cabin VOCs.

### Reduction of emissions from manufacturing activities

Typical emissions from vehicle manufacturing plants include nitrogen oxides (NOx), sulfur oxides (SOx), and VOCs, and Nissan has continued to employ strict measures to address the emission of these substances.

Since NOx and SOx are released into the air when fossil fuels are combusted, we have been promoting the adoption of low-NOx burners, change to low-SOx fuels, and so on. Going forward, we expect to reduce emissions from manufacturing further by electrifying facilities that use fossil fuels. To reduce VOC emissions, we collect and recycle cleaning thinners and promote the use of water-based coating lines in painting processes.

Nissan is working to ensure thorough compliance with management standards and mechanisms related to substances released into the atmosphere, and will engage in activities to reduce both the usage and emissions of causal substances.

<sup>\*1</sup> VOC: Organic chemicals that readily evaporate and become gaseous at normal temperature and pressure conditions.

<sup>\*2</sup> Click here for information. >>>P042

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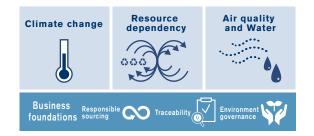
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### Business foundations

While aiming to resolve the critical issues in NGP2030, such as climate change and resource dependency as well as air quality and water, and to create new value, Nissan will work to ascertain needs through stakeholder engagement and strengthen its business foundations that relate to environmental issues.

As a global company, we place great importance on fulfilling our responsibility to address environmental issues and on our accountability across the entire value chain. We are committed to achieving a sustainable mobility society and sustainable business operations, as well as to contributing to regional communities through the following initiatives: Identifying risks throughout vehicle life cycles using life cycle assessments; working with suppliers to improve environmental performance; establishing systems for environmental data management throughout the value chain; and continuous efforts to raise the environmental awareness of Nissan's employees.



### Secure responsible sourcing

Nissan must comply with EU battery regulations, the CSRD\*1 and other environmental due diligence amid the rising

importance of reducing environmental risks throughout the entire value chain. Further, given regulations relating to corporate social responsibility (CSR) and information disclosure frameworks such as TCFD\*2 and TNFD\*3, companies are required to promote and disclose not only their own environmental/social activities but also those throughout their supply chains.

Nissan clearly positions suppliers as important partners in its sustainability policy. We have shared our basic philosophy and procurement policies on environmental and social issues with suppliers. Also, we promote collaborations on environmental activities through the formulation and publication of several of our policies and guidelines\*4 (Nissan Human Rights Policy, Nissan Global Guideline on Human Rights, Nissan Supplier Sustainability Guidelines, Nissan Green Purchasing Guidelines) and engage with suppliers by holding annual environmental activity briefing meetings. Under NGP2030 aiming to respond to external trends, including the legalization of information disclosure, we are incorporating the requirements for responsible procurement into our guidelines and actively managing supply chain risks. In addition, Nissan procures raw materials with consideration for ethical, social, and environmental aspects, and aims to achieve sustainable and responsible procurement through dialogues with its suppliers. In March 2025, Nissan joined the Global Platform for Sustainable Natural Rubber (GPSNR). For details, please refer to "Responsible Materials Sourcing"\*5 and "Collaborations with relevant partners."\*6

# Integrated management of value chain information and accountability (traceability)

To prepare for the trend toward regulation and expanded disclosure scope throughout the entire value chain, it is

considering the establishment of a system to collect and manage supply chain information across the industry. Further, the disclosure of non-financial information, including CO<sub>2</sub> emissions from corporate activities, is also required in addition to the disclosure of financial information. To address these external trends, we aim to ensure accountability for the environmental impact across our entire value chain. We have introduced a digital platform for integrated environmental data management to effectively address not only climate change but also human rights issues in the supply chain and impacts on natural resources. Specifically, through this digital traceability platform, we aim to track and manage our CO2 emissions, water usage, and waste, ensuring transparency in our information disclosure to stakeholders. Additionally, by enhancing information management and intercompany data linkage across the entire Nissan supply chain, we aim to accelerate collaboration with suppliers to reduce environmental risks.

### Enhance environment governance

It is important that all employees act with integrity and in accordance with high ethical standards to reduce environmental impact. In all regions where Nissan operates, we have established internal standards to ensure compliance with environmental laws, regulations and the demands of society. In aiming for thorough legal compliance with regard to the environment, under NGP2030 we are promoting the understanding of environmental laws through educational activities for employees and other initiatives on a worldwide basis.

<sup>\*1</sup> Corporate Sustainability Reporting Directive

<sup>\*2</sup> Task Force on Climate-related Financial Disclosures

<sup>\*3</sup> Task Force on Nature-related Financial Disclosures

<sup>\*4</sup> Click here for more information. https://www.nissan-global.com/EN/SUSTAINABILITY/LIBRARY/

<sup>\*5</sup> Click here for information. >>> P087

<sup>\*6</sup> Click here for information. >>> P059

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### NGP2030 action plan

Activities		NGP2030 Objectives	FY2024 result	
		Life cycles (t-CO <sub>2</sub> /vehicle)	-30% (Global)	-12% Reduced CO <sub>2</sub> emissions per vehicle by promoting CO <sub>2</sub> reduction in each area
		Products (g-CO <sub>2</sub> /km)	-32.5% (Global), -50% (4Majors: Japan, U.S.A., Europe and China)	Global: -13%, 4Majors (Japan, U.S.A., Europe and China): -17% Reduced CO <sub>2</sub> emissions by improving ICE fuel efficiency and promoting vehicle electrification mainly in 4Majors.
		Manufacturing (t-CO2/vehicle)	-52% (Global)	-10% In addition to continuing energy conservation activities, promoted the introduction of renewable energy.
Climate change	Reduce CO <sub>2</sub> emissions	Suppliers		Promoted reduction of CO <sub>2</sub> emissions during manufacturing by expanding the application of green aluminum and green steel.
Long-term vision: Realize carbon neutrality by 2050	(Base year) 2018	Logistics (t-CO <sub>2</sub> /vehicle)	Aim to achieve life cycle targets	-8% CO <sub>2</sub> emissions were reduced by modal shift from trucks to rail/ships and production volume mix changes.
		R&D facility (t-CO <sub>2</sub> /development cost)		-25% CO <sub>2</sub> emissions were reduced by expanding the use of renewable energy. The improvement of the electric power emission coefficient also contributed.
		Offices (t-CO <sub>2</sub> /floor area)		-42% Promoted energy conservation activities at each site and expanded the use of renewable energy. In FY2024, the electricity and thermal energy for our global headquarters were delivered from 100% renewable energy sources.
		Dealers (t-CO2/floor area)		-17% Visualized the energy performance of each dealer to foster a mindset for energy-saving activities. In addition, conducted energy diagnostics at individual stores to propose further energy-saving opportunities and solutions, and shared these as case studies with dealers nationwide.
Resource	Materials	Expand sustainable material (weight basis)	40% (Japan, U.S.A., Europe and China)	32.5% Expanded the use of sustainable materials through the active adoption of recycled materials and green materials.
dependency  Long-term vision: No new material	iviaterials	Manage waste / Landfill	Maintain low levels	Promoted waste and landfill reduction, including the consideration of foundry sand recycling.
resource use	Vehicles	Expand energy management function	Installation rate on EVs: 100% (Japan, U.S.A. and Europe)	Developed charging and connected technologies, including the completion of field operational trials for AC V2G technology in the U.K. in 2024.

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Activities		NGP2030 Objectives	FY2024 result			
	Water	Enhance water risk management at manufacturing sites		Promoted activities at sites to achieve zero high-risk sites.		
		Reduce water usage at manufacturing sites	Zero high-risk sites	Promoted water reduction at sites with high water usage, such as reducing the amount of cooling water at the Tochigi Plant.		
Air quality and water		Manage wastewater quality at manufacturing sites		Continued wastewater quality management at manufacturing sites.		
Long-term vision: Zero impact / Zero risk	Air quality	Enhance management of vehicle emissions, including non-tailpipe emissions	Technology development and adoption	Continued to explore technologies to reduce brake wear dust to comply with stricter regulations.		
		Manage VOCs at manufacturing sites	Continue current activities (paint shops)	Improved recovery rate of waste thinners.		
		Manage in-cabin air quality	Comply with Nissan standard on in-cabin VOCs	All models designated for FY2024 complied with Nissan standard on in-cabin VOCs.		
	Secure responsible sourcing		Secure responsible sourcing  Secure supply chain risk management		Secure supply chain risk management	Updated the Nissan Supplier Sustainability Guidelines for Suppliers and Nissan Green Purchasing Guidelines and ensured thorough compliance.
Foundation	Integrated management of value chain information and accountability (traceability)		Build and operate carbon footprint management system for corporate activities and parts production     Secure supply chain data reliability	Revamped the information management system related to climate change, resource dependency, air quality and water in preparation for its operation starting from FY2025.		
	Enhance environme	ental governance		Incorporated the updated global environmental policy in FY2023 into our internal training materials.		

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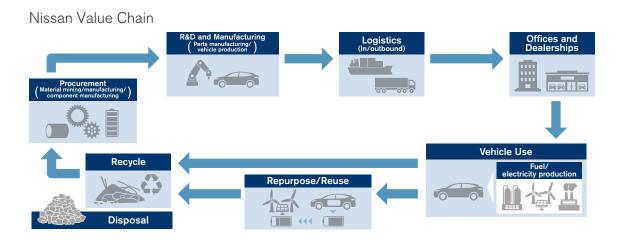
### Value chain activity achievements

Nissan prioritizes climate change, resource dependency, and air quality and water, which are the key areas related to its business. In minimizing its dependence and impact on ecosystem services, Nissan also provides a range of value to society and the environment to realize its environmental philosophy of "a Symbiosis of People, Vehicles, and Nature." This section introduces environmental initiatives and the value in the three main value chain business areas: Products, Corporate activities, and Collaborations with relevant partners.

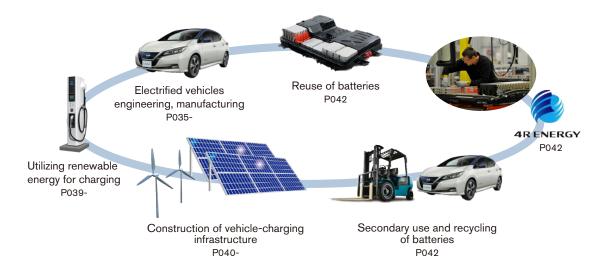
### **Products**

# Establishing a sustainable society using electrified vehicles

As a pioneer in mass-produced electric vehicles, Nissan considers the introduction and adoption of electrified vehicles to be one of the pillars of its corporate strategy. We are taking a comprehensive approach along with other activities coordinated with a variety of partners to popularize their use. Considering not only the development and sales stages but also customer use, these initiatives include the promotion of renewable energy use for charging electrified vehicles, cooperation with energy infrastructure beyond the scope of individual vehicles, and the secondary use of batteries after end-of-life. This not only reduces CO2 emissions during driving, but also creates new value that can only be achieved with electrified vehicles, such as energy management, with the aim of maximizing the use of vehicles as a resource. Through these activities, Nissan will reduce environmental impact throughout the entire vehicle life cycle and contribute to the creation of a sustainable society.



Initiatives for building a sustainable society using electrified vehicles



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### Initiatives in development and sales Nissan's electrification technologies for achieving carbon neutrality by 2050

Nissan is advancing innovations in electrification to achieve carbon neutrality. Our analysis shows that electrified vehicles can reduce CO<sub>2</sub> emissions over their entire life cycle compared with gasoline-powered vehicles of the same class. Electrified vehicles play an essential role beyond transportation in helping to achieve a low-carbon society by contributing to the shift toward renewable energy. Nissan has been working to advance and promote electrification technologies that can reduce CO<sub>2</sub> emissions by focusing on EVs and e-POWER, which have the common feature of being 100% motor-driven.

# Value delivered by Nissan electrified vehicles

Nissan is committed to promoting the widespread adoption of electrified vehicles by pursuing a driving experience and a comfortable cabin thanks to electrification technologies. We aim to create exciting driving experiences that can only be realized with 100% motor-driven vehicles, eliminating the potential stress that accumulates unnoticed in daily driving. For example, e-Pedal Step provides responsive acceleration when the accelerator is depressed and smooth deceleration via motor regeneration when the accelerator pedal is released. In addition, e-40RCE is an innovative electrically driven all-wheel control technology that integrates the control of two high-output motors (front and rear) and the brakes. e-40RCE enables the flexible control of driving power, enhancing handling in all types of conditions, from daily driving to winding roads and slippery road surfaces. In addition, EVs are designed to be exceptionally quiet, taking advantage of the absence of engine noise and vibration. Furthermore, the absence of a transmission and exhaust pipes has enabled a flat floor and a spacious, comfortable

cabin. With e-POWER, in addition to the quietness inherent to 100% motor-driven systems, electricity generation is intentionally designed to occur in environments where road noise masks engine sounds to enhance the vehicle's overall quietness.

# Technological innovations supporting the spread of electrified vehicles

### Evolving EV platform

Nissan continues to evolve its dedicated EV platform. The Nissan Ariya, launched in 2022, features a compact motor room, and by moving the air-conditioning unit within it, interior space has expanded and significantly increased legroom in the front seats. In addition, a flat floor and highly rigid body are achieved by the integrated structure of the floor and the thin, high-capacity battery pack. The combination of a highly rigid body and low center of gravity produces superlative handling performance.

The third-generation Nissan LEAF, announced in June 2025, refines these technologies and achieves a larger battery capacity and higher efficiency through more efficient battery placement and a thorough thermal management system.

### Electric powertrain

EV and e-POWER, Nissan's two pillars of electrification technology, achieve a high degree of commonality in core components. We are working to reduce costs by increasing commonality in our entire lineup. Each core component has been downsized while improving performance. For example, in the evolution from e-POWER to the second-generation e-POWER, the output density of the inverter has been doubled. Nissan's "X-in-1", its new approach to electric powertrain development, shares further-evolved core components between EVs and e-POWER vehicles and modularizes them to achieve compactness, light weight, and low cost while improving driving performance and quietness.

We have developed a 3-in-1 module for EVs comprising three components (motor, inverter, and reducer for traction), which has been adopted in the third-generation Nissan LEAF announced in June 2025. For e-POWER, we plan to adopt a 5-in-1 module consisting of five components: motor, inverter, reducer for traction, generator, and increaser for generation starting in fiscal year 2025. Going forward, we will enhance the competitiveness of EV and e-POWER by expanding the adoption of this electric powertrain technology.

## Dedicated engine design for power generation

Nissan is also working on the development of engines focused on power generation based on its Strong Tumble and Appropriately stretched Robust ignition Channel (STARC) concept. In conventional driving power transmissions, thermal efficiency is limited to approximately 40% to accommodate output characteristics that cover a wide range of driving loads.

In contrast, engines focused on power generation, such as the e-POWER, enable the engine usage range to be limited to the most efficient point. This breakthrough uses the engine in full fixed-point operation, enabling a dramatic improvement in thermal efficiency, leading to the development of a technology realizing thermal efficiencies of up to 50%.

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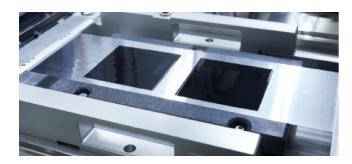
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### Next-generation batteries

Nissan is developing batteries on three fronts: new lithiumion batteries with significantly improved performance compared with conventional batteries, lithium-ferrophosphate (LFP) batteries that enable substantial cost reductions, and all-solid-state batteries that are expected to be a game-changing technology. All-solid-state batteries have an energy density approximately twice that of conventional batteries, significantly shorter charging times due to superior charge/discharge performance, and the potential to reduce battery costs by reducing rare metal usage. Nissan may be able to use all-solid-state batteries in a wide range of vehicle segments, including pickup trucks, making its EVs more competitive. This technology is currently in the production prototype stage, and a pilot production line was unveiled in 2024.

Nissan has been developing this technology and aims to bring it to market by 2028.



### Light weight technology

Along with improving the efficiency of batteries, engines, and electric powertrains, reducing the weight of vehicles is important for carbon neutrality.

Nissan is working on weight reduction from three points of view: materials, structural optimizations, and manufacturing processes.

#### **Materials**

Nissan is rapidly expanding the use of Ultra High Tensile-Strength Steel which realizes high strength and formability while also reducing weight. This material is used for the body frame components on a wide range of vehicle models, from "kei" cars to the INFINITI. In 2018, we adopted 980 megapascal (MPa) Ultra High Tensile-Strength Steel with High Formability, which features further improvements in collision energy absorption performance, for the INFINITI QX50, and in 2019 SAE International presented Nissan with the "SAE/AISI Sydney H. Melbourne Award for Excellence in the Advancement of Automotive Steel Sheet," among other accolades. We continued to expand the range of models in which the material is used, and in 2024, we expanded its use to the Patrol, Kicks, Murano, and INFINITI QX80.

#### Structural optimizations

The e-POWER system, which structure is changed for integration of motors and inverters, was adopted in the 2020 Note, achieving a 6% increase in output while reducing the weight of the motor by 15% and the inverter by 30%. The same technology was used in the Nissan Sakura in 2022 and Serena in 2023.

#### Manufacturing processes

Nissan is engaged in the practical application of a new casting method called the vacuum low-pressure die cast process (V-LPDC). This method was applied to the 1.5-liter, 3-cylinder turbo engine cylinder head of the Rogue and Qashqai, contributing to a 4% weight reduction.

Nissan will continue proactively developing lightweight technologies to reduce CO<sub>2</sub> emissions to achieve carbon neutrality.

### Global promotion of electrification

## Electrified vehicle performance and assessment

Since the launch of the Nissan LEAF in 2010, Nissan has been expanding and promulgating its battery EV and e-POWER models.

In 2022, Nissan launched the Nissan Sakura for the "kei" car segment, which achieved the largest sales volume among EVs in Japan for fiscal year 2024. Furthermore, the Nissan Sakura ranked first as the most attractive model in the Minicar-Height Wagon segment of J.D. Power's 2024 Japan Automotive Performance, Execution and Layout (APEAL) study.

e-POWER, an electrified vehicle realizing low carbon emissions through the utilization of existing infrastructure that provides a driving experience not unlike that of an EV, e-POWER technology forms part of Nissan's global promotion of electrification and reached a cumulative global production of 1.5 million units in 2024. In major overseas markets, to date e-POWER has been installed in the Sylphy, X-Trail, Qashqai, and Kicks in China, Europe, Mexico, and other markets. We also plan to introduce it in the Rogue in the North American market in fiscal year 2026. Furthermore, the Note and Kicks ranked first as the most attractive models respectively in the Compact Car and Compact SUV segments of J.D. Power's 2024 Japan APEAL (Automotive Performance, Execution and Layout) study.

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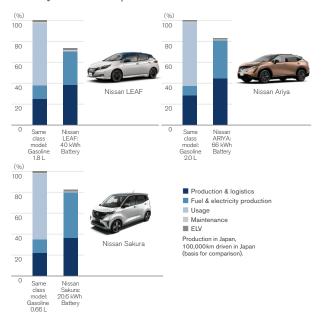
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### Life cycle assessments of EV models\*1

Nissan conducts life cycle assessment (LCA) to quantitatively evaluate and comprehensively assess environmental impact. The Nissan LEAF's life cycle CO<sub>2</sub> equivalent emissions have been reduced by approximately 30% compared with conventional vehicles of the same class in Japan. The Nissan Ariya and Nissan Sakura, launched in 2022, improve EV product appeal and reduce environmental impacts. Compared with Japanese gasoline-powered vehicles in the same class, the life cycle CO<sub>2</sub> equivalent emissions of the Nissan Ariya and Nissan Sakura have been reduced by approximately 20%. Nissan will continue to pursue the potential for further reducing the environmental impact of EVs throughout their life cycles.

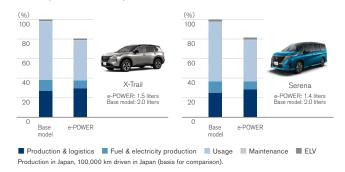
### Life cycle CO<sub>2</sub> equivalent emissions



### Life cycle assessments of e-POWER models

Nissan introduced its new e-POWER powertrain in 2016, marking another significant milestone in the electrification strategy with life cycle emission improvements. For example, X-Trail e-POWER, and Serena e-POWER have achieved approximately 20% reductions in CO<sub>2</sub> emissions compared with their gasoline-powered counterpart models. e-Power models use a system in which the gasoline engine operates only for generating electricity under specific conditions. As a result, e-POWER models achieve better fuel efficiency for driving than conventional gasoline engines with less engine displacement.

### Life cycle CO<sub>2</sub> equivalent emissions



#### Life cycle CO<sub>2</sub> reduction on the Nissan Ariya

In Nissan Ariya production at the Tochigi Plant, we have intensified our efforts to minimize CO<sub>2</sub> emissions at every stage of the vehicle's life cycle. In the production stage, we contributed to the reduction of CO<sub>2</sub> equivalent emissions through ongoing efforts that include improving material yield and utilizing recycled raw materials. Following the introduction of the Nissan Intelligent Factory\*2 method at the Tochigi Plant in 2021, we are actively working toward making all of our production plants carbon neutral. To achieve this, we are focusing on promoting innovative practices that enhance production efficiency during vehicle assembly, improving the efficiency of the energy and materials utilized in our plants, electrifying plant equipment, and utilizing renewable energy sources. These efforts are aimed at reducing carbon emissions and creating a more sustainable manufacturing process for Nissan vehicles. To reduce environmental impact in vehicle use, Nissan is continuously reducing CO<sub>2</sub> emissions by improving the efficiency of electric powertrains, including batteries, saving power on accessories, and increasing renewable energy usage. Nissan is actively promoting the reuse of vehicle batteries\*3 as a stationary battery for distributed power supply, enabling the storage of renewable energy and contributing to the decarbonization of society.

Nissan will keep working to reduce the environmental impact from the entire life cycles of electric vehicles.

<sup>\*1</sup> Click here for more information on LCA environmental data. >>>P155

<sup>\*2</sup> Click here for more information on the Nissan Intelligent Factory. >>> P045

<sup>\*3</sup> Click here for more information on the reuse of vehicle batteries. >>> P042

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# Technical developments meeting different needs

### Initiatives in fuel-cell electric vehicles

Powered by electricity generated from hydrogen and oxygen, fuel-cell electric vehicles (FCEVs) are zero emission vehicles that do not produce CO<sub>2</sub> or other harmful emissions. We believe that, as part of building a sustainable mobility society, both FCEVs and EVs are viable options from an energy diversity perspective.

In alignment with Japanese government policies, we joined forces with Toyota Motor Corporation, Honda Motor Co., Ltd., and other companies to establish Japan H2 Mobility, LLC (JHyM), targeting the full-fledged development of hydrogen stations for FCEVs in Japan. Addressing the key issues raised during the initial stage of FCEV promotion, JHyM will ensure that infrastructure developers, automakers, and investors all do their part to support the successful strategic deployment of hydrogen stations and effective operation of the hydrogen station business in Japan.

### Initiatives in solid oxide fuel-cell systems

In June 2016, Nissan unveiled its e-Bio Fuel-Cell system that runs on bioethanol electric power. The new system features a solid oxide fuel-cell (SOFC) power generator.

SOFC technology can produce electricity with high efficiency using the reaction of oxygen with multiple fuels, including ethanol and natural gas. SOFCs can run on a variety of fuels, enabling the use of existing fuel infrastructure, and have the advantage of presenting relatively low hurdles in terms of infrastructure adoption.

Because our technology combines the efficient electricity generation of SOFC with the high energy density of liquid fuels, it can enable driving ranges on par with gasolinepowered vehicles.

Commercial users that require higher uptime for their vehicles should increasingly be able to take advantage of this solution thanks to the short refueling times it offers.

### Commercial vehicle electrification

We are also advancing the electrification of commercial vehicles to achieve carbon neutrality.

#### History of commercial electric vehicles at Nissan

In June 2014, Nissan launched the EV multipurpose commercial van e-NV200 in European countries and Japan. The e-NV200 has power outlets in two locations drawing up to a total of 1,500 W of electricity from the onboard engine for electrical generation, which can be used to secure power on the road during normal operation, on the go on business, for leisure activities, as well as a power source in the event of a disaster. On construction sites, noise problems can be alleviated as there is no need to use an engine-powered generator. In Europe, Nissan proposed a concept combining comfort and practicality to enhance outdoor activities in winter with the e-NV200 Winter Camper concept making it possible to charge the 220-volt battery using solar panels mounted on the roof.

In 2020, the Tokyo Fire Department began using a zeroemission EV ambulance based on the NV400. Nissan thinks quiet, low-vibration EV ambulances have strong merits. As this vehicle is also equipped with two lithium-ion batteries providing 33 kWh and 8 kWh, it is possible to operate electrical equipment and air conditioners for longer periods of time. It also enables these ambulances to be used as mobile power sources in the event of a power outage or disaster.

In 2022, Nissan pursued quality and functionality with the launch of the Townstar, based on the Renault-Nissan-Mitsubishi Alliance CMF-C platform. The Townstar can flexibly handle delivery operations in urban areas. In 2024, Nissan launched the Clipper EV in Japan. This light commercial van ensures the necessary cargo space and load capacity. It delivers powerful performance unique to electric motor-driven EVs, enabling swift transportation of heavy cargo.

Nissan will continue to expand its lineup of electric

commercial vehicles and promote the manufacture of commercial vehicles with zero emissions.



As a mobile power source, the e-NV200 has a range of business applications. (Production of the e-NV200 has ended.)



Zero-emission EV ambulance based on the NV400

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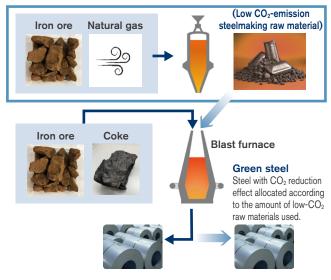
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# Efforts to reduce CO<sub>2</sub> emissions during manufacturing through use of green steel and green aluminum

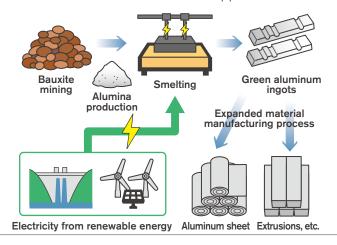
Since approximately 60% of a vehicle's weight is made up of steel parts and around 10% of its weight is made up of aluminum parts, the use of green steel\*1 and green aluminum\*2 is a highly effective way to reduce CO<sub>2</sub> emissions during parts manufacturing, which is part of the vehicle's life cycle.

After first partnering with Kobe Steel, Ltd. in January 2023, we have begun progressively expanding the utilization of green steel and green aluminum in our vehicles, which not only contributes to the significant CO<sub>2</sub> emission reductions during manufacturing, but also maintains the same level of high quality as conventional products. For green aluminum, we are working in partnership with Kobe Steel, Ltd. and UACJ Corporation; and for green steel, with Nippon Steel Corporation, JFE Steel Corporation, and POSCO Co., Ltd. In addition, we will reduce CO<sub>2</sub> emissions during manufacturing by promoting closed-loop recycling\*3, which utilizes scrap materials generated at Nissan production sites as recycled inputs.

### Green steel: Mass balance approach (The case of Direct Reduced Iron)\*4



### Green aluminum: Mass balance approach



# Utilization of renewable energy during charging

### Launch of 100% renewable energy service for EV charging service at Nissan dealerships and other facilities

As part of our efforts to create a zero-emissions society utilizing EVs, 100% of the electricity used for quick charging at Nissan dealerships and other facilities in Japan has come from renewable energy sources since September 2023.\*5



# Providing virtually 100% renewable electricity to employees

Since 2019, some Nissan dealerships in Japan have been selling virtually 100% renewable electricity on behalf of electric power companies to encourage EV users to charge at home. From the beginning of fiscal year 2022, we began providing Nissan employees residing in the Kanto area with electricity derived from virtually 100% renewable electricity. In addition, in December 2024, we launched Nissan Denki, a

<sup>\*1</sup> Green steel: Low-CO2 steel with significantly reduced CO2 emissions in the steelmaking process

<sup>\*2</sup> Green aluminum: Aluminum that is electrolytically smelted using only electricity generated by solar power and other renewable energy sources, thereby reducing CO2 emissions during aluminum ingot production by approximately 50%.

<sup>\*3</sup> Closed-loop recycling: The reuse of aluminum or steel sheet scraps generated during manufacturing as materials of the same quality for reuse in similar products. Click here for more information on aluminum recycling.

<sup>\*4</sup> Mass balance approach: Within the product manufacturing process, this is a method for assigning characteristics to parts of a product when raw materials with certain characteristics (e.g. low-CO<sub>2</sub> products) and raw materials without said characteristics are mixed, depending on the amount of raw materials with said characteristics. The CO<sub>2</sub> emission reduction effect is concentrated in specific steel materials.

<sup>\*5</sup> When quick charging using the Nissan Zero Emission Support Program 3 (ZESP3), a charging support program for owners of electric vehicles (EVs). Click here for more information on the 100% renewable energy EV charging service at Nissan dealerships and other facilities.(Japanese only) https://www.nissan.co.ip/EV/CHARGE\_SUPPORT/ZESP3/renewable\_energy.html

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residential electricity service in Kanagawa Prefecture. This service provides virtually 100% renewable energy and can reduce net CO<sub>2</sub> emissions to zero. We plan to expand the service area in the future.

Nissan is also conducting various EV utilization demonstration experiments in collaboration with electric power companies and other organizations, with a view to utilizing energy management centered on future EVs. This initiative is a step toward decarbonization taken by Nissan as an EV pioneer, not only producing and selling EVs, but also throughout product life cycles. We are committed to work with everyone toward the realization of carbon neutrality through a wide range of activities.



# Collaboration with energy infrastructure

### Energy ecosystem utilizing EVs

## Nissan energy: Renewal of solutions that enrich life and society with EVs

In addition to manufacturing and selling EVs, Nissan is promoting the development of Nissan Energy, a solution that provides customers a more fulfilling life with EVs. The Nissan EV ecosystem was established by combining these two activities.

Nissan Energy is offered in the following three areas:

- · Expansion of charging solutions
- · Energy management utilizing electric vehicles
- · Promotion of 4Rs for second-life use of lithium batteries



### Expansion of charging solutions

Various electric charging solutions are provided to enable customers to enjoy safe and convenient lifestyles with EVs. Charging at home is the most convenient charging method, as it is completed while the car is parked at home. For safe charging at home, in Japan and some other markets, Nissan selects and mediates companies that install dedicated EV outlets and chargers for charging at home.

For both the Nissan LEAF, which has a cruising range sufficient for everyday use, and the Nissan Ariya, in which occupants can enjoy long-distance trips, drivers can enjoy their trips to distant places with even more peace of mind by utilizing the expanding network of public charging stations. The MyNISSAN app provides a convenient and seamless charging experience by offering features such as locating and monitoring the availability of public charging stations, route planning that takes into consideration charging locations, and the payments of charging fees.

Further, we have adopted more user-friendly standards for public charging stations in consideration of both customer charging behaviors and the targeted EV models in each region.

Beginning in model year 2025, in the U.S.A. we have decided to make the Nissan Ariya compatible with NACS, which is the Tesla charging standard and has the highest number of quick-charging stations in the network. We also offer charging experiences tailored to the needs of customers in Europe and Japan.

The launch of Nissan's new Nissan ENERGY CHARGE Network will make owning and charging a Nissan EV easier and more seamless. The new network allows Nissan Ariya and future Nissan EV drivers to use their MyNISSAN app to find charging stations, see real-time charger availability and pay for charging.

This enhancement to the MyNISSAN app simplifies EV ownership by consolidating vehicle management and public charging into one app. Users store a default payment method in the MyNISSAN app, then once at a compatible charging station, simply tap an on-screen button to start a charging session within the NISSAN ENERGY Charge Network. This feature has been available to MyNISSAN app users since November 2024.

The NISSAN ENERGY Charge Network partners with leading charging partners such as Tesla and Electrify America. Launching this network is another step by Nissan to improve the customer experience and make EV ownership easier and more convenient.

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## Energy management utilizing electric vehicles

The electricity stored in a Nissan EV's battery can do more than just power a vehicle; it can be shared with homes, buildings, and local communities through bi-directional chargers.

Using inexpensive electricity in the evening during off-peak periods and excess electricity generated by solar panels during daytime reduces electricity costs and helps promote a model of local generation of electricity for local consumption. In Japan, EVs also provide backup power during blackouts or emergencies.

Local communities can connect multiple EVs to regional power-grids to charge or discharge electricity in accordance with power supply and demand balance, which contributes to the stability of a community's power supply and promotes renewable energy use. EVs with high-capacity batteries are expected to play a significant social infrastructure role by storing renewable energy such as solar power which power generation is difficult to control.

## Introduction of Vehicle to Grid (V2G) technology in the U.K.

Nissan has announced that it will introduce Vehicle to Grid (V2G) technology in selected EVs in the U.K. from 2026. This initiative aims to promote the use of renewable energy and contribute to the realization of a sustainable society in support of Nissan's long-term vision, Ambition 2030. V2G technology enables electricity stored in EV batteries to be used to power homes or sold back into the grid, making it possible to efficiently utilize renewable energy sources such as wind and solar. This will reduce dependence on fossil fuels and contribute to reducing greenhouse gas emissions. Nissan has gained G99 \*1 Grid code certification, which is

a set of technical standards required for connecting powergenerating devices to the U.K.'s electricity grid, for its power exchange system through a successful demonstration project at The University of Nottingham, enabling power supply from EVs. This technology promotes the expansion of clean energy use and contributes to the efficiency of regional power infrastructure.

Going forward, Nissan will roll out V2G technology across markets in Europe, starting with the U.K., introducing systems in alignment with local infrastructure. In addition, we will offer cost-effective AC-bidirectional chargers to help more customers make use of renewable energy. Through these endeavors, Nissan aims to position EVs not just as a means of transportation, but as integral components of a sustainable energy ecosystem.



#### V2X technology

Nissan's Vehicle-to-X (V2X) is a technology that efficiently utilizes the electrical energy stored in the batteries of EVs by extracting and sharing it with homes, buildings, and society via bidirectional chargers.

Renewable energy sources, such as solar and wind power, are essential to realize carbon neutrality. However, power generation from these sources fluctuates depending on weather conditions, which can lead to surplus or shortage of electricity supply in relation to demand. Thus, maintaining a stable supply and demand balance poses a challenge. By using V2X technology, it becomes possible to absorb fluctuations in renewable energy generation through the charging and discharging of EV batteries. This enables the stable utilization of valuable renewable energy and contributes to the promotion of renewable energy adoption. Additionally, V2X can be utilized as a backup power source during disasters, expanding its value and potential.

<sup>\*1</sup> Technical standard that applies to the connection of power-generating assets to the electricity distribution networks in the U.K.

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## Promotion of 4Rs for second-life use of lithium batteries

Nissan EV batteries offer high performance even after having been used in cars. As more and more customers switch to EVs, the supply of batteries capable of secondary use is expected to increase significantly.

In 2010, Nissan, as an EV pioneer, joined forces with Sumitomo Corporation and established 4R Energy Corporation, which specializes in secondary use of lithiumion batteries. The intention is to promote the four Rs of lithium-ion batteries — reuse, resell, refabricate, and recycle — and establish a battery circular system which will enable the efficient use of resources.

### Circular system realized with used EV batteries

The market for used batteries will expand with the spread of EVs and their utilization will become an issue in the future. To solve this issue, 4R Energy Corporation has promoted the development of technologies for the reuse of used batteries at its plant in the town of Namie, Fukushima Prefecture. Used batteries collected from the market are sorted according to their condition and performance and supplied to various secondary users. Through these activities, we are building a business model to return value to customers, such as increasing the residual values of EVs based on the value of reused batteries. Expanding this model into a business and reducing the hurdles to ownership for customers will lead to the more widespread use of EVs.

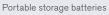
#### Case study of secondary use of EV batteries

Sumitomo Corporation has completed the construction of the EV Battery Station Chitose in Chitose City, Hokkaido, utilizing EV batteries provided by 4R Energy Corporation. This facility is a battery storage system for the grid with an output of 6 megawatts and a capacity of 23 megawatt-hours, which is equivalent to the electricity used by approximately 2,500 households per day. By utilizing EV batteries in stationary application (commercial electric power), Sumitomo Corporation is not only contributing to the reduction of recycling costs through expanded use and increased demand for reused EV batteries. but also maximizing the use of resources such as rare metals contained in storage batteries and thereby reducing CO<sub>2</sub> emissions in the process of production of storage batteries.

#### Commercialization of reused batteries

Nissan is promoting the commercialization of used batteries.







Off-grid street lighting

# Addressing all forms of emissions Addressing emissions

### Promoting zero-emission vehicles

EVs such as the Nissan LEAF, which has cumulative global sales of approximately 700,000 units (as of the end of March 2024), are an effective solution for reducing air pollution in urban areas. As a leader in this field, we are promoting zero-emission mobility and infrastructure construction in partnership with national and local governments, electric power companies, and other industries.

### Enhancing internal combustion engines

We have proactively set voluntary standards and emission reduction targets for internal combustion engines. With the ultimate goal of making automotive emissions as clean as the atmosphere itself, we have developed a wide range of technologies and achieved the results listed below through cleaner combustion technologies, catalysts for purifying emissions, and countermeasures against gas vapors from gasoline tanks.

- · Sentra CA (released in the U.S.A. in January 2000): The world's first gasoline-powered vehicle that satisfied all the exhaust gas requirements set by the California Air Resources Board to receive Partial Zero Emissions Vehicle (PZEV) certification.
- · Bluebird Sylphy (released in Japan in August 2000): The first passenger vehicle made in Japan to achieve Ultra-Low Emission Vehicle (U-LEV)\*1 certification.

We will continue our efforts to ensure cleaner exhaust emissions from internal combustion engines.

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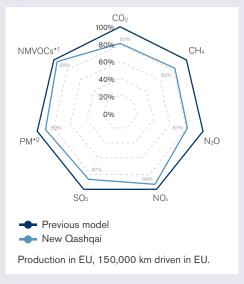
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### Life cycle improvements beyond climate change

Nissan is expanding the scope of its life cycle assessment (LCA) to not only greenhouse gases but also a variety of chemicals. Our calculations show that the new Qashqai achieves emission reductions of 5-20% for all targeted chemical substances and reduces environmental impacts throughout its life cycle compared with the previous model.

### New Qashqai life cycle assessment (LCA)



# Compliance with air quality emissions regulations (Passenger cars only)

Nissan not only works to develop and promote zero-emission EVs but continues to promote cleaner exhaust emissions from all of its engines.

For example, the Qashqai released in Europe in October 2018 has a fuel-efficient 1.3-liter turbo gasoline engine fitted with a particulate filter that meets the Euro 6d-Temp emissions standard. In Japan, our product with electrification technology, e-POWER has achieved a 75% reduction in exhaust emissions from 2018 standards and improved fuel economy.

In addition to complying with current regulations, we are also working to meet more advanced and upcoming standards. The status of compliance with regional emission regulations is as follows.

Compliance with exhaust emissions regulations (By region) \*3

		(FY)
Country/Region	Standard	2024
Japan	50% lower than 2018 standard	87%
Europe	Euro6d/Euro6e	100%
U.S.A.	LEV III ULEV/SULEV/ ZEV	100%
China	National 6	100%

### Addressing emissions other than vehicle exhaust

In consideration of impacts on people and nature, Nissan is broadening its efforts to address vehicle emissions beyond exhaust emissions to include wear from brakes, tires, and various other sources.

EVs use regenerative braking to charge their battery with electricity generated, thereby reducing wasted energy and improving electricity efficiency. This also reduces brake wear, contributing to improved air quality as well as climate change mitigation.

As the next proposed European exhaust emission regulation, Euro 7, will regulate particulate emissions including those from brake wear, Nissan has begun exploring technologies to address this issue.

### Improving in-cabin air quality

Under the circumstances of widespread advanced driver assistance systems and the development of fully autonomous driving technologies, it is expected that drivers will spend more time in their vehicles, making it even more important for that space to be pleasant and safe.

Nissan is conducting research and development aimed at cleaner vehicle emissions and has made efforts to improve the cabin environment, including better air quality, to enhance comfort. As part of its continued efforts to reduce VOCs such as formaldehyde and toluene, Nissan is carrying out additional reviews of materials for seats, door trims, floor carpets, and other parts as well as adhesives.

Nissan complies with Nissan standards which are in accordance with the laws and guidelines of each country regarding in-cabin VOCs.

<sup>\*1</sup> NMVOC: Non-Methane Volatile Organic Compounds

<sup>\*2</sup> PM: Particulate Matter

<sup>\*3</sup> Passenger cars only.

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### Corporate activities

In our corporate activities, including production, logistics, offices, and dealerships, we promote various activities. In terms of manufacturing, we have announced the concept Nissan Intelligent Factory for the next generation of vehicle manufacturing and are making progress in our efforts toward carbon neutrality.

We are also promoting decarbonization throughout our corporate activities by improving the efficiency of our logistics operations and installing renewable energy systems in our offices and dealerships. By developing systems that utilize resources and energy efficiently and sustainably throughout their entire life cycles and incorporating a circular economy perspective, we are also endeavoring to maximize the value we provide to society and our customers. Through these efforts, we are striving to minimize resource and energy usage and emissions.

# Efforts toward carbon neutrality Efforts toward CO<sub>2</sub> emission reduction through efficient energy use

We are promoting activities aimed at achieving carbon neutrality by 2050 in our corporate activities. Nissan's first priority will be the minimization of energy consumption through energy measurement and energy conservation activities. In addition, we will make maximum efforts to transition to electrification and replace them with carbon-free energy.

We will also promote technological development to create further opportunities.

### Scope 1 and 2 CO<sub>2</sub> emissions\*1

In fiscal year 2024, the total of Scope 1 and 2 emissions\*2 of our global corporate activities was 1,519 thousand tons \* (Scope 1 emissions: 442 thousand tons \*; Scope 2 emissions: 1,077 thousand tons \*), a 12% decrease from 1,731 thousand tons in fiscal year 2023.

CO <sub>2</sub> emissions results (FY)					
Scope	Unit	2023	2024		
Scope 1	(kt-CO <sub>2</sub> )	477	442★		
Scope 2	(kt-CO <sub>2</sub> )	1,254	1,077★		
Scope 1 + 2	(kt-CO <sub>2</sub> )	1,731	1,519★		
Japan	(kt-CO <sub>2</sub> )	984	908		
North America	(kt-CO <sub>2</sub> )	501	401		
Europe	(kt-CO <sub>2</sub> )	86	73		
Other	(kt-CO <sub>2</sub> )	161	137		

# Greenhouse gas (GHG) emissions other than energy-derived CO<sub>2</sub>\*3

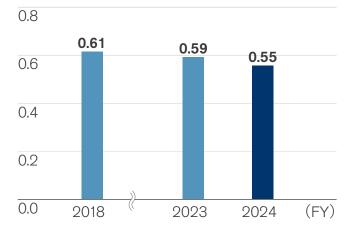
(FY) CH4 (methane) t-CO<sub>2</sub>e 5,705 4,810 N<sub>2</sub>O (nitrous oxide) t-CO<sub>2</sub>e 1,801 2,094 HFCs (hydrofluorocarbons) t-CO<sub>2</sub>e 148 121 PFCs (perfluorocarbons) t-CO2e 0 0 SF6 (sulfur hexafluoride) t-CO<sub>2</sub>e 128 117 NF<sub>3</sub> (nitrogen trifluoride) t-CO2e  $\cap$ 0

### Manufacturing activities

### Manufacturing CO<sub>2</sub> per vehicle produced\*4\*5

In fiscal year 2024, our manufacturing CO<sub>2</sub> emissions per vehicle produced were 0.55 tons, 10% less than fiscal year 2018.

### (t-CO<sub>2</sub>/vehicle)



★ This figure is subject to assurance by KPMG AZSA Sustainability Co., Ltd. For details, please see here. >>> P061

<sup>\*1</sup> Changed in line with revisions to fiscal year 2023 performance data.

<sup>\*2</sup> Click here for more information on the data book for the past 5-year historical trends. >>> P146 Click here for more information on details regarding CO<sub>2</sub> calculation methodology. >>> P062

<sup>\*3</sup> GHG emissions from Nissan bases in Japan, calculated based on the Act on Promotion of Global Warming Countermeasures.

<sup>\*4</sup> The boundary of data aggregation has been revised to align with the financial consolidated group.

<sup>\*5</sup> CO2 emissions per vehicle produced in the NGP management scope.

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## Carbon neutrality roadmap at production plants

Nissan is promoting activities aimed at achieving carbon neutrality at its plants, with the goal of achieving this by 2050.

In October 2021, we announced a roadmap to achieve carbon neutrality in 2050 at our plants to steadily promote initiatives to achieve this goal.\*1

**By 2030:** We will first promote the introduction of innovative production technologies and electrification while reducing energy consumption in plants. Following this, we plan to introduce renewable energy and expand the application of alternative energy.

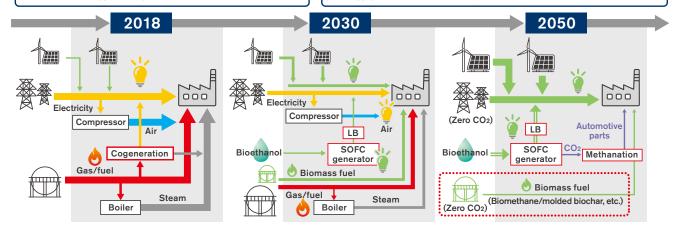
**2030-2050**: We aim to eliminate the use of fossil fuels by utilizing biofuels and fully electrifying plant equipment that currently operates under various forms of power, including gas and steam. At the same time, we are working toward achieving carbon neutrality at our plants through the full use of renewable energy and in-house electricity generation via fuel cells powered by alternative fuels.

#### -2030

- Energy reduction / Improvement of plant equipment efficiency
- Consideration of electrification of some equipment and tools and use of biofuels
- · Introduction of renewable energy, partial application of alternative energy power generation

#### 2030-2050

- · Energy reduction / Improvement of plant equipment efficiency (continued)
- · Full electrification of plant equipment+Use of biofuels (where biofuels are advantageous, depending on the region)
- Carbon neutrality through full adoption of renewable energy, alternative energy generation, and CO<sub>2</sub> sequestration



# Aiming to achieve carbon neutrality by 2050 through innovation in production technology

### Nissan Intelligent Factory, our next-generation vehicle manufacturing concept\*2

Nissan announced its Nissan Intelligent Factory concept for the next generation of vehicle manufacturing as the advancement of Nissan Intelligent Mobility such as electrification and intelligence accelerates. As the functionality and structures of cars become more complex, further technological innovation will become essential in the production process.

The pillar of the Nissan Intelligent Factory concept, the Zero Emission Production System promotes activities based on the carbon neutrality roadmap at production plants.



<sup>\*1</sup> Click here for more information on our roadmap for carbon neutrality at production plants. <a href="https://global.nissannews.com/en/releases/release-c252360e116720126985295f9d7480af-new-nissan-intelligent-factory-opens-in-tochigity at production plants.">https://global.nissannews.com/en/releases/release-c252360e116720126985295f9d7480af-new-nissan-intelligent-factory-opens-in-tochigity at production plants.</a>

<sup>\*2</sup> Click here for more information on the Nissan Intelligent Factory. <a href="https://www.nissan-global.com/EN/INNOVATION/TECHNOLOGY/ARCHIVE/NIF/">https://www.nissan-global.com/EN/INNOVATION/TECHNOLOGY/ARCHIVE/NIF/</a>
Click here for more information on a next-generation vehicle manufacturing concept. (Japanese only) <a href="https://global.nissannews.com/ia-JP/releases/191128-02-i">https://global.nissannews.com/ia-JP/releases/191128-02-i</a>

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### Key initiatives toward carbon neutrality by 2050 at production plants

### Global energy-saving activities (adoption of new technologies, improved processes)

Most CO<sub>2</sub> emissions in the manufacturing process come from the consumption of energy generated by fossil fuels. We engage in a variety of energy-saving activities in the manufacturing process in pursuit of the lowest energy consumption and CO2 emissions among automakers.

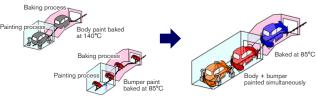
#### Initiatives in automotive production technology

In the realm of automotive production technology, we are introducing highly efficient equipment and improving manufacturing techniques. Other key approaches are the three-wet paint process and low-temperature baking technology used for vehicle painting, which enable the body and bumpers to be painted at the same time. Approximately 30% of CO<sub>2</sub> emitted from manufacturing plants comes from the painting process, thus shortening or eliminating processes and lowering temperatures during the process will lead to a reduction in CO<sub>2</sub> emissions. The low-temperature three-wet painting technology introduced by Nissan enables the body and bumpers, which were previously painted separately, to be painted at the same time, reducing CO2 emissions from the painting process by 25% or more.\*1 Nissan has implemented this technology in the new production line at the Tochigi Plant in the Nissan Intelligent Factory (launched in 2021) and is being gradually expanded its roll out as painting facilities become more sophisticated in the future. Also, systems for recycling air expelled from booths needed dehumidifying processing to ensure that the air was at the humidity required. Dry paint booths can reuse air without dehumidifying it, reducing energy consumption to less than half its previous levels.

This technology was adopted for the dry paint booths at our

Sunderland Plant in the U.K. (in operation since September

### Simultaneous Painting of Body and Bumpers



CO2 emissions have been reduced by simultaneously painting the body and bumpers using a new technology and consolidating them into one process (right) and drying at a low temperature (85°C) instead of the conventional two-step process (left).

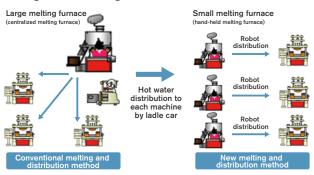


### Initiatives in the field of powertrain production technology

In the field of powertrain production technology, Nissan is working to reduce CO<sub>2</sub> mainly in aluminum cast melting and heat treatment processes. The conventional melting process involved the use of large furnaces having a melting capacity of three to four tons per hour installed at each factory, with molten aluminum transported and distributed to the holding furnaces of each casting machine using forklifts equipped with ladles. We have adopted a system in which smallscale melting furnaces with the minimum capacity required for each casting machine are installed next to all casting machines, with molten metal distributed to casting machine holding furnaces by robots. This method has eliminated the temperature loss caused by transporting molten metal, and

has made it possible to lower the melting temperature by approximately 100°C. This has also enabled us to suspend melting furnace operation in accordance with the operating rate of each casting machine, achieving an overall reduction in CO<sub>2</sub> emissions of approximately 20%. In recognition of these efforts. Nissan was awarded the 2024 GOOD FACTORY Award, sponsored by the Japan Management Association.

### Changes in melting and distribution methods



### Energy-saving activities at Nissan Energy Saving Collaboration (NESCO)\*2

To reach our defined objectives for CO<sub>2</sub> emissions and energy use, we solicit facility proposals from each global site, preferentially allocating investment based on the potential CO<sub>2</sub> emission reductions compared to project costs. In Japan, aging facilities are being transformed into cutting-edge, high-efficiency facilities to improve energy consumption efficiency.

In terms of facility operation, meticulous management of lighting and air-conditioning systems is carried out to ensure thorough energy consumption control and minimize waste during operations. Our plants use finely controlled lighting and air-conditioning for low-energy consumption and lowenergy-loss operations. We promote CO<sub>2</sub> emission reduction

<sup>\*1</sup> Source: Nissan

<sup>\*2</sup> Established in Japan in 2003, then in Europe, Mexico, and China in 2013

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activities and introduced cutting-edge, energy-conserving technology from Japan to our plants worldwide. Our plants globally engage in learning and sharing best practices with each other, while NESCO diagnoses energy loss at plants in the regions where we operate and proposes new energy-saving countermeasures. These proposals amounted to a potential reduction in CO<sub>2</sub> emissions of some 41,172 tons\*1 in fiscal year 2024.

When sourcing energy, we consider the balance of CO<sub>2</sub> emissions for the entire company alongside renewable energy usage rate and cost, choosing the suppliers best suited for achieving each goal.

As a result of these activities, CO<sub>2</sub> emissions at production plants in fiscal 2024 amounted to 0.55 tons per vehicle, a reduction of 10% from the fiscal year 2018 level.

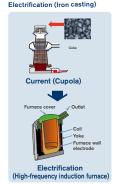
### Expanded electrification of production facilities

The electrification of fossil fuel facilities is indispensable to achieving carbon neutrality. For that reason, we have initiated the electrification of aluminum melting furnaces and gas heating equipment used for casting. Additionally, we have plans to convert various heat treatment furnaces and cupolas, which currently use coke as fuel, to electric furnaces.

Electrification of compressed air, which has low energy efficiency, is also effective in reducing CO<sub>2</sub> emissions. For this reason, we are reducing our compressed air usage by converting air tools in the assembly process to electric tools and migrating from water removal by air blowing to vacuum drying in the machining process.

We will continue to expand production facility electrification in these and other ways.







Electrification (Tools)

### Promoting renewable energy

Nissan takes three approaches to promote the adoption and integration of renewable energy in line with the characteristics of each region: (1) Generating our own renewable energy in company facilities; (2) sourcing clean energy; and (3) promoting the introduction of renewable energy through contracts with PPA\*2 providers.

As an example of the first approach, our Sunderland Plant in the U.K. introduced 10 wind turbines supplying 6.6 MW of power. In fiscal 2023, we updated the wind turbine facilitates. We are continuously exploring ways to enhance power generation efficiency. At our lwaki Plant, the guest hall for plant visitors is powered by solar energy. By storing surplus electricity in second-life Nissan LEAF batteries, the plant both stabilizes the energy supply and uses resources more effectively.

Regarding the second approach, Renault Nissan Automotive India Private Limited in India actively uses energy generated from wind power, solar power, and biomass. In fiscal year 2024, the proportion of renewable energy in the total electricity consumption averaged approximately 82% annually and reached a maximum of 98% on a monthly basis.

Under contract with a PPA\*2 provider, Dongfeng Nissan Passenger Vehicle Company (DFL) commenced the operation of solar power generation systems of approximately 20 MW at its Huadu Plant, 3 MW at its Changzhou Plant, and 5 MW at its Zhengzhou Plant in fiscal year 2023. Having also installed solar power generation systems at its global sites, including of 20 MW at both its Sunderland plant in the U.K. and at Tan Chong Motor in Malaysia. Nissan is steadily promoting the use of renewable energy.



Solar power generation at the Sunderland Plant

### In-house power generation using alternative fuels

In 2016, Nissan became the first automotive company in the world to incorporate e-Bio Fuel-Cell technology, a fuel cell system that uses solid oxide fuel cells (SOFC\*3) as a vehicular propulsion system. Based on its experience in developing SOFCs for automotive applications, Nissan will apply this technology to stationary power generation systems\*4.

On March 6, 2024, Nissan announced that it had developed a stationary, bioethanol-fueled system capable of highefficiency power generation and commenced trials at its Tochigi Plant.

<sup>\*1</sup> Source: Nissan

<sup>\*2</sup> Power Purchase Agreement

<sup>\*3</sup> SOFC (Solid Oxide Fuel Cell)

<sup>\*4</sup> Click here for more information on stationary power generation systems. https://global.nissannews.com/en/releases/nissan-starts-trial-of-stationary-power-generation-system-fueled-by-bio-ethanol

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Moving forward, Nissan aims to improve its power generation capacity through trial operations and work toward full-scale operations starting from 2030.



In-house power generation using SOFC

Along with SOFC systems, procuring bioethanol for power generation is also important. Although bioethanol derived from plants releases CO<sub>2</sub> when used in SOFC power generation, this is CO<sub>2</sub> that was absorbed from the atmosphere during the plant growth process, thereby contributing to the realization of a "carbon-neutral cycle" that can reduce CO<sub>2</sub> emissions to near zero. Nissan has turned its attention to sorghum, a member of the grass family, as a raw material for bioethanol and is engaged in R&D ahead of procurement. Sorghum is characterized by its rapid growth, ability to be harvested multiple times a year, and high adaptability to its environment. These characteristics enable



sorghum to be cultivated in a wide range of regions and climate conditions, making it suitable for stable procurement. Sorghum kernels are used as food, while the pulp remaining after the extraction of juice (bagasse) is expected to be used as biomass power generation fuel and livestock feed.

Having been conducting a small-scale trial production of sorghum bioethanol since 2024, we have verified the entire process, from sorghum cultivation to bio-ethanol production. At present, we are working to resolve remaining issues as we prepare for full-scale operations.

### EV36Zero, an electric vehicle (EV) hub to achieve carbon neutrality

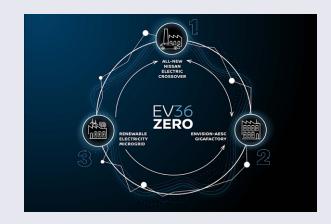
Nissan is a pioneer in not only the development and production of EVs, but also in comprehensive efforts to utilize the onboard battery as a storage battery and for secondary use, with the aim of achieving carbon neutrality throughout the entire life cycle of a vehicle. In July 2021, we unveiled EV36Zero as the world's first hub to create an ecosystem for electric vehicle (EV) manufacturing to advance the next phase of the automotive industry together with our partners and achieve carbon neutrality in Europe.

- New-generation Nissan electric crossover to be manufactured at the Nissan Sunderland, U.K. Plant
- · AESC will build a new battery giga-factory with an annual production capacity of 9GWh adjacent to the Nissan Sunderland Plant
- · Renewable energy 'Microgrid' to deliver 100% clean electricity for the Sunderland Plant
- · Second-life EV batteries used as energy storage for ultimate sustainability
- · This comprehensive project represents 6,200 jobs at Nissan and at its U.K. suppliers

Centered around the plant in Sunderland, U.K., Nissan EV36Zero will supercharge the company's drive to carbon neutrality and establish a new 360-degree

solution for zero-emission mobility. The transformational project has been launched with an initial £1 billion investment by Nissan and its partners AESC and the Sunderland City Council.

Comprised of three interconnected initiatives, Nissan EV36Zero brings together EVs, renewable energy and battery production, setting a blueprint for the future of the automotive industry. The experience and knowhow gained through the project will be shared globally, enhancing Nissan's global competitiveness.



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## Initiatives in the logistics field

To achieve carbon neutrality across the entire life cycle, Nissan has formulated a clear roadmap toward 2030 in the logistics field and is proactively moving forward. The following specific initiatives are being implemented. Reduced distances: We minimize transport distances through efficient logistics design.

Improved packing: We reduce transport volume with optimized packing specifications and part shapes. Improved loading: We increase transport loading efficiency by optimizing routes and frequency.

In 2024, when transporting import parts from the Honmoku Wharf for the Nissan Ariya manufactured at the Nissan Intelligent Factory in Tochigi, which aims to achieve a zero-emission production system, we switched from conventional trucking to rail transport, thereby reducing environmental impacts.

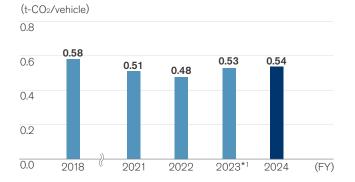
Furthermore, we are strengthening cooperation with logistics partners around the world who are committed to environmental measures. We are promoting modal shifts, utilizing ships that run on environmentally friendly fuel, and introducing electric trucks, particularly as more than 80% of the transport of completed vehicles to Europe is now done by LNG carriers.

In fiscal year 2024,  $CO_2$  emissions from logistics per global vehicle were 0.54 tons, a reduction of -7.9% compared with 2018.



Launch of Nissan Ariya import parts rail transport

## CO<sub>2</sub> emissions from logistics (per vehicle produced)



## CO<sub>2</sub> emissions from logistics

In fiscal year 2024,  $CO_2$  emissions from logistics were 1,774k-tons.

	Unit	2023*1	2024
Total*2	kt-CO <sub>2</sub>	1,981	1,774
Inbound*3	kt-CO2	552	505
Outbound*4	kt-CO <sub>2</sub>	1,429	1,269

Sea	%	37.0	38.1
Road	%	57.3	56.1
Rail	%	3.1	3.4
Air	%	2.6	2.5

### Office initiatives

Nissan promotes efforts to reduce  $CO_2$  emissions at Nissan offices in Japan, North America, Europe, and China. In Japan, through Nissan Trading, we operate the Nissan Power Producers and Suppliers (PPS) scheme, sourcing clean energy for which  $CO_2$  emissions and costs have been taken into account through Japan's PPS system. Overseas, we are expanding the introduction of renewable energy in offices, with a focus on sites in Europe.

Nissan Energy Saving Collaboration (NESCO) teams contribute to reducing emissions in the Nissan Technical Center in Atsugi.

In addition to CO<sub>2</sub> management, we are encouraging initiatives that show consideration for the environment. These include reducing the number of business trips on a global basis by utilizing online meeting tools.

<sup>\*1</sup> Changed in line with revisions to fiscal year 2023 performance data.

<sup>\*2</sup> CO2 emissions include those from transportation of parts to our manufacturing bases and transportation of vehicles from our manufacturing bases to dealerships.

<sup>\*3 &</sup>quot;Inbound" includes parts procurement from suppliers and transportation of knockdown parts.

<sup>\*4 &</sup>quot;Outbound" includes transportation of complete vehicles and service parts. Click here for more information on the data for the past five years. >>> P148

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## Renewable energy initiatives at Nissan Global Headquarters

At our Global Headquarters in the city of Yokohama, Kanagawa Prefecture, we are promoting energy conservation activities through daily improvements that include turning off lights and installing LEDs, as well as reducing CO<sub>2</sub> emissions through the introduction of renewable energy. In 2011, we installed a solar power generation system providing approximately 40kW. The electricity generated is stored in Nissan LEAF lithium-ion batteries housed in the Global Headquarters building, then used for electric vehicle charging systems installed onsite. Surplus power generated is effectively used as electricity for the building. In fiscal year 2024, the electricity and thermal energy used in our Global Headquarters was entirely replaced by renewable energy.



## Green building policy

Based on ISO 14001 management processes to evaluate environmental impact, we make it a key task to optimize our buildings during construction or refurbishing to make all our structures greener. Evaluation metrics in this area include environmental footprint, such as CO<sub>2</sub> emissions; waste and emissions from construction methods; and the use of hazardous materials and other quality control issues. Furthermore, one of the performance indices for Nissan in Japan is the Comprehensive Assessment System for Built Environment Efficiency (CASBEE), which was developed by the Ministry of Land, Infrastructure, Transport and Tourism. Among our current business facilities, our Global Headquarters has earned CASBEE's highest "S" ranking, making it the second Nissan building to do so following the Nissan Advanced Technology Center (NATC) in Atsugi, which is also located in Kanagawa Prefecture. Our Global Headquarters gained a Built Environment Efficiency Rating of 5.6, the highest CASBEE rating for a new structure, making it one of Japan's greenest office buildings. The use of natural energy sources to reduce the building's energy usage and CO2 emissions were evaluated highly, as were its methods of water recycling and its significant reduction in waste produced.

## Dealership initiatives

Nissan promotes efforts to reduce CO<sub>2</sub> emissions at dealerships. Our retail outlets also work continually to increase energy efficiency. Many have adopted high efficiency air-conditioning, insulation films, ceilings, fans and LED lighting. During renovation work, some outlets have installed lighting systems that make use of natural daylight, as well as insulated roofs.

In April 2000, we introduced the "Nissan Green Shop" certification system, a proprietary environmental management system based on ISO 14001 certification, to promote energy conservation and other CO2 reduction activities as one of our environmental initiatives.

A set of standards has been established enabling CO2 reduction activities to be conducted in accordance with a unified concept based on the Nissan Green Program 2030 (NGP2030), and specific measures such as reducing electricity consumption and switching to LED lighting have been incorporated into the activity plans of each company.

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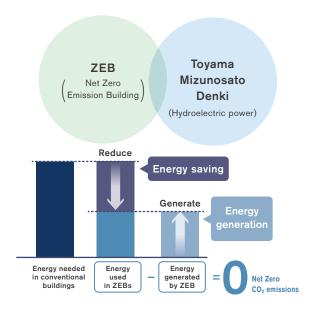
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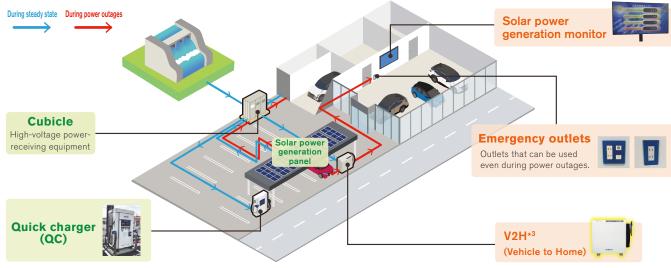
# Carbon-neutral activities at local dealerships

In the Hokuriku region, the Takaoka Interchange branch of the Nissan Satio Toyama dealership located in Toyama Prefecture became the first in the region to be designated as a carbon-neutral dealership in December 2022, followed by the Toyama Higashi branch in July 2023.

In addition to the building's high thermal insulation, the incorporation of high-efficiency air-conditioning and sensor-based lighting controls have enabled the building to achieve a 63% reduction in standard primary energy consumption and obtain ZEB-Ready\*1 certification. In addition, solar panels are installed on the roof of an outdoor showroom to generate electricity on-site, and for additional electricity needs, the dealership utilizes the Toyama Mizunosato Denki\*2 renewable energy menu from a hydroelectric dam located in Toyama Prefecture, leveraging the value of locally sourcing renewable energy.

Through these efforts, we are realizing carbon-neutral dealerships that both conserve and create energy. Nissan Satio Toyama will promote Electrify Japan Blue Switch Program activities to resolve local issues using electric vehicles and V2H,\*3 contribute to the realization of carbon neutrality in Toyama Prefecture centered on these key dealerships, while promoting the spread of electric vehicles and trains.





<sup>\*1</sup> ZEB (Net Zero Energy Building) Building design that aims to achieve a balance of zero in the annual primary energy consumption, while providing a comfortable indoor environment.

<sup>\*2</sup> Toyama Mizunogou Denki A menu of renewable electricity that utilizes the electricity generated from the Toyama Prefecture-owned hydroelectric power plants and its environmental value. This electricity has high added value, including not only the environmental value of zero carbon dioxide emissions associated with electricity usage but also the specified power source value derived from hydroelectric power plants and the local value of being produced in Toyama Prefecture.

<sup>\*3</sup> V2H (Vehicle-to-Home) A system that allows EVs to supply electricity to buildings by drawing power from them. During power outages caused by disasters or other events, this system enables the use of lighting, outlets, and other electrical devices in offices, conference rooms, and other locations by supplying power from EVs.

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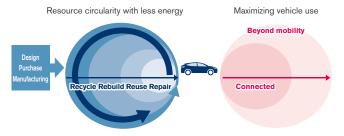
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# The Nissan circular economy (resource circularity and mobility usage)

Nissan promotes the efficient and sustainable use of resources for vehicles as well as their maximum utilization. To achieve resource circularity with less energy, Nissan actively promotes practices such as repair, which involves using vehicles while they are being serviced, as well as reuse and rebuild efforts to repurpose parts and units whenever possible. Additionally, recycling is emphasized to facilitate the circulation of materials. Further, even when we do use new resources, we make efforts to use circulable materials that have a minimal environmental impact.

### Nissan's circular economy



## Resource circularity with less energy Effective use of resources in the design, purchase, and manufacturing phases

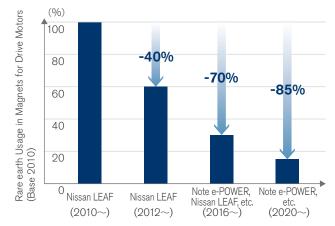
### Reducing scarce resources

Permanent magnet motors for EVs, HEVs and e-POWER use scarce resources known as rare earth elements. Given concerns about the uneven distribution of rare earth resources and price fluctuations driven by the supply and

demand balance, reducing the amount of rare earth metals used is becoming an issue.

Nissan has continuously reduced the use of heavy rare earth, which is the scarcest of all, and in 2020, the Note e-POWER adopted magnets with 85% less heavy rare earth compared with 2010. Furthermore, the 2022 Nissan ARIYA is equipped with an electrically excited synchronous motor that negates the need for magnets. We will also continue to promote R&D aimed at eliminating heavy rare earth elements in motors that require magnets.

## Rare earth Usage in Magnets for Drive Motors



### Proper use of regulated chemical substances

Nissan continually reviews its standard for the assessment of hazards and risks related to chemical substances, actively applying restrictions to substances not yet covered by regulations but increasingly subject to consideration around the world. As a result, the number of defined chemical substances covered in fiscal year 2024 rose to 7,987. These steps are thought to be necessary for future efforts in the repair, reuse, remanufacture, and recycle loop for resources.\*1

### Number of defined chemical substances



0 2020 2021 2022 2023 2024 (FY)

# Effective use of resources in repairs, reuse, and rebuilds

### Repair initiatives

New technologies such as opposite die-less molding, which allows body panels to be formed without the use of dies, and 3D printers\*2 make it possible to keep producing parts required for after-sales service, as well as to repair parts of older models, which require high-mix, low-volume production. This enables us to extend vehicle lifetimes while helping to reduce waste.



<sup>\*1</sup> Click here for more information on chemical substance governance. >>> P018

<sup>\*2</sup> Click here for more information on 3D printers. (Japanese only) https://global.njssannews.com/ja-JP/releases/release-abe1d9572c0dbf098bf54c66e927c947-210315-01-i

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# Promoting the 4RE lithium-ion battery secondary use business

Nissan EV batteries offer high performance even after being used in cars. As the adoption of EVs increases and vehicle replacements progress, it is anticipated that the supply of batteries available for secondary use will significantly rise. Nissan is promoting a business for the secondary use of lithium-ion batteries initially used in EVs.\*1

### Expansion of remanufactured parts

Parts reclaimed from end-of-life vehicles (ELVs) and those replaced during repairs include potential parts for recycling. In Japan, we collect these parts and conduct thorough quality checks to sell them under the Nissan Green Parts initiative. Nissan Green Parts have two categories: remanufactured parts, which are disassembled and have components replaced as needed, and reusable parts\*2. By accelerating such Nissan Green Parts initiatives, particularly in Japan, Europe, and North America, Nissan aims to supply parts to customers stably while effectively using limited resources.

### Example of Nissan Green Parts in Japan







Air-conditioning compressor Start

Starter motor

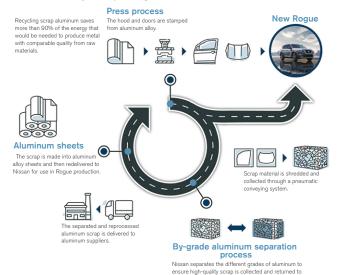
# Effective use of resources in recycling

# Initiatives to expand use of recycled materials (ferrous and nonferrous metals)

In fiscal year 2024, ferrous metals accounted for 60% of the materials used in our automobiles by weight. Nonferrous metals made up another 11% and resins 19%, with miscellaneous materials making up the final 11%. To reduce our use of natural resources, we are advancing initiatives to expand the use of recycled materials in each of these categories.

Taking steps to reduce the steel and aluminum scrap left over from the manufacturing process, we are working globally with business partners to collect and reuse this scrap as material for new vehicles through closed-loop

### Closed-loop recycling of aluminum



suppliers. Different grades of aluminum are used for

different parts of the car.

### recycling initiatives.

Currently, at Nissan Motor Kyushu and plants in North America and Europe, where X-Trail, Rogue and Qashqai are manufactured, we are collaborating with aluminum manufacturers to adopt a closed-loop recycling process that recycles aluminum scraps generated during manufacturing into aluminum alloy sheets for automobiles. The sorting and collecting of scrap in this process control impurities, realizing horizontal recycling without quality deterioration, which contributes to reductions in the amount of newly mined resources (aluminum ingots) used. Aluminum road wheel scrap generated from ELVs and the market are also used for suspension parts after sorting and removing impurities and making them compliant with Nissan's quality standards. We aim to achieve closed-loop recycling for ELV aluminum doors and the like, which are being promoted to reduce weight. We then control the composition to secure the

### Horizontal recycling of aluminum



Collection and sorting of aluminum wheel scraps

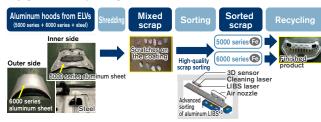


Melting and casting (Yokohama and Tochigi Plant)



Suspension part (Skyline, etc.)

### Upgrade recycling of aluminum



<sup>\*1</sup> Click here for more information for the secondary use of lithium-ion batteries >>> P042

<sup>\*2</sup> Not available at some retail outlets.

<sup>\*3</sup> Laser-Induced Breakdown Spectroscopy

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necessary formability for aluminum panels, after innovating the shredding method to improve the accuracy of aluminum sorting, and aim to achieve closed-loop recycling rather than the conventional cascade recycling method.

# Initiatives to expand use of recycled materials (plastics)

In addition to our initiatives to expand the use of recycled steel and aluminum, Nissan also strives to use more recycled plastics. After resin materials are manufactured from crude oil and residue plastic parts are applied to vehicles and scrapped, most plastic parts are collected as automotive shredder residue (ASR) and used as energy in the form of thermal recovery.

Compared with conventional materials, recycled plastics can reduce the amount of CO<sub>2</sub> generated during material production, contributing significantly to effective resource use and waste reduction. Nissan is promoting R&D into material and chemical recycled plastics to establish a circular economy for plastic materials. As a material recycling initiative, our Oppama Plant and Dongfeng Motor Co., Ltd. (DFL), our joint venture in China, are recycling painted bumpers generated at the plants. These are utilized as materials for new car bumpers or after-sales service bumpers.

Additionally, replaced bumpers collected from dealerships are being recycled as materials used in undercovers and for other components. We collected and recycled approximately 78,000 bumpers in fiscal year 2024, representing 50% of bumpers removed at Japanese dealerships.

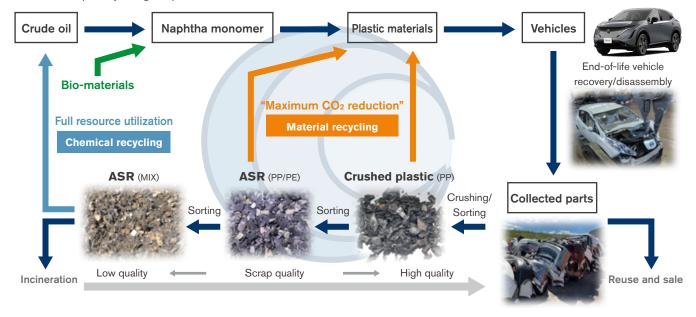
Furthermore, 30% of the ASR processed at dedicated processing plants is made from plastics. Nissan is engaged in R&D aimed at recycling these resins as materials for automobiles.

In addition to recycling used automotive parts, we are also promoting the development of recycled plastics for use in other industries. We are promoting an initiative to recycle splash prevention partitions used within our offices for recycling as automobile parts, the use of acrylic (PMMA) partitions for the inner lenses of headlamps, and polyethylene terephthalate (PET) partitions for roof trim. In promoting these efforts, we aim to increase the use of recycled plastics from the automotive and other industries, targeting a 10% recycled plastics utilization rate in new passenger cars produced and sold in Japan by 2031.

### Recycling of plastics materials



### Closed-loop recycling of plastics



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### End-of-life vehicle recycling

Nissan considers the three Rs —reduce, reuse, and recycle —from the design stage for new vehicles. Since fiscal year 2005, all new models launched in the Japanese and European markets have achieved a 95% or greater recyclability rate.\*1

We have also joined forces with other automotive companies to promote the recycling of ELVs through dismantling and shredding.

Based on Japan's End-of-Life Vehicle Recycling Law, Nissan has achieved at least 95% effective recycling rate of ELVs in Japan since fiscal year 2005. In fiscal year 2024, we achieved a final recovery ratio for ELVs of 99.4%\*2 in Japan, greatly exceeding the target effective recycling rate of 95% set by the Japanese government.

In December 2003, Nissan and twelve other automobile manufacturers launched the Automobile Shredder Residue Recycling Promotion Team (ART), and has since promoted the processing of ASR at ASR recycling facilities. This initiative complies with Japan's Automobile Recycling

Law, and Nissan is playing a central role in ensuring the effective, smooth, and efficient recycling of ASR.

We have also established a take-back system for ELVs in Europe. This network of Authorized Treatment Facilities was developed for individual countries in collaboration with contracted dismantlers, contracted service providers, and governments in alignment with a European ELV directive. Additionally, Japan Automobile Manufacturers Association, Inc. (JAMA) established a common scheme for recovering used lithium-ion batteries along with a system for processing these batteries appropriately, and put both into operation in fiscal year 2018.

## ELV processing flow



### Reuse of rare earth metals

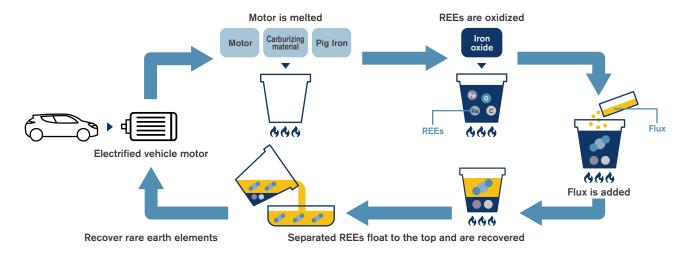
As a new initiative, Nissan is also promoting the development of rare earth metal recovery technologies from drive motor

magnets. Previously, the recycling of the magnets used in motors had required multiple processes that included the manual disassembly and removal of the magnets making economic efficiency an issue. Nissan and Waseda University collaborated to establish technologies for recovering rare earth elements (REEs) in highly pure states through direct dissolution using borate as a flux, eliminating the need to dismantle the motor rotors.

Currently, we are conducting trial testing using motors that did not meet our shipping standards to put the new technologies into practical use around 2030. In these ways, with respect to motors, which are a key technology, Nissan is engaged in developments

key technology, Nissan is engaged in developments corresponding to the circular economy concept, from reducing the amount of REEs used to utilizing resources efficiently and sustainably.

Recycling process for rare earth elements (REEs) used in electrified vehicle motors



<sup>\*1</sup> Calculated based on 1998 JAMA definition and calculation guidelines (in Japan) and ISO 22628 (in Europe).

<sup>\*2</sup> Based on Nissan research

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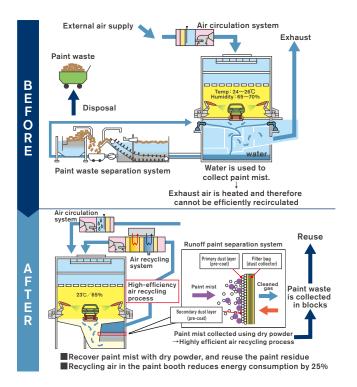
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### Promoting recycling with dry paint booths

Recycling is also being promoted at the Nissan Intelligent Factory, which began operations in 2021.

Conventionally, residual paint in the air during the painting process has been mixed with water and disposed of as waste. By employing dry booths that do not use any water, 100% of the paint mist is collected in the plant and recycled as a substitute for the auxiliary agent used to remove impurities in the iron casting process.



## Thorough measures for waste materials

Nissan actively promotes measures based on the 3R (Reduce, Reuse, Recycle) approach in its production processes whenever possible, striving to minimize the waste generated and maximize recycling efficiency by thorough waste sorting. At the end of fiscal year 2010, we achieved a 100% recycling rate at all of our manufacturing sites in Japan, including five manufacturing plants, two operation centers, and seven affiliates. Overseas, we have reached 100% recycling rates at plants in India, Brazil, and elsewhere. We are also working to reduce waste at global production factories, including Japan, by reducing packaging materials for imported and exported parts, distributing parts between overseas bases, and repeatedly using plastic and returnable containers.\*1

Furthermore, we have optimized the shape of parts at the parts design stage, which is called logistics simultaneous activities, to reduce the volume of packaging materials used. We also contribute to waste reduction by selecting recyclable materials at the packaging material selection stage and are actively engaged in the development of recycling technologies for carbon fiber-reinforced plastics (CFRP).

### Waste\*2

The volume of regular waste\*3\*4 generated from global corporate activities in fiscal year 2024 amounted to 150,642 tons, and waste generated from production sites in fiscal year 2024 was 145,678 tons (Non-regular waste\*5 from production sites: 10,226 tons).

## Regular waste generated from corporate activities\*6

(FY)

	2023	2024
Total	155,857	150,642
By region		
Japan	57,646	54,910
North America	50,814	50,856
Europe	44,551	43,142
Other	2,846	1,734

By treatment method			
Recycling	146,332	142,013	
Incineration waste	1,997	1,352	
Landfill waste	7,528	7,277	

(Unit: Tons)

# Maximizing use of vehicles as resources: Mobility and connected services

Through electrification and connected car technologies, we are promoting the provision of new mobility services that include ride sharing and the use of vehicles as energy sources. In this way, we are expanding services that utilize vehicles to connect people and society.

We are also considering ways to maximize the use of vehicles through mobility services and connected vehicles.\*7

<sup>\*1</sup> Returnable containers: Containers for packing parts that can be returned to the sender after parts delivery and used repeatedly. Nissan has adopted a folding structure in consideration of transportation efficiency at the time of return.

<sup>\*2</sup> From fiscal year 2023 performance data, the scope of calculations is aligned with the consolidated financial group.

<sup>\*3</sup> Regular waste generated from production, maintenance, and issue resolution activities, etc.

<sup>\*4</sup> Click here for more information on resource dependency (Facility waste). >>> P151

<sup>\*5</sup> Waste generated irregularly from activities such as installing new processes, relocating equipment, and dismantling facilities.

<sup>\*6</sup> Regular waste generated from production and office sites, excluding\*5.

<sup>\*7</sup> For details, please see here. >>> P040

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## Impacts on and dependencies on nature within corporate activities (water and air)

### Water-related achievements

## Reducing water used in corporate activities

Nissan views water as a contextual issue, and in areas with a high risk of water stress, Nissan prioritizes efforts aimed at reducing water usage, including wastewater recycling and the effective use of rainwater, while also contributing to the resolution of local water issues. Additionally, all manufacturing plants are working to manage and reduce water usage, and each plant is implementing new water reduction activities through mutual improvements. To reduce water usage, we built reservoirs to collect rainwater at the Chennai Plant in India and the second Aguascalientes Plant in Mexico, and installed wastewater recycling equipment at the Chennai Plant, the Huadu Plant in China, and the Oppama Plant in Japan. In particular, the Chennai Plant, which is located in a water basin with valuable water resources continues its efforts to reduce water usage and is also engaged in the restoration of nearby ponds and lakes.

In recognition of these efforts, Nissan received consecutive awards from the Confederation of Indian Industry (CII) for outstanding water resource management in fiscal year 2023 and for wastewater management and recycling in fiscal year 2024.

We are also working on the efficient use of water resources at office locations, in addition to our manufacturing sites. For example, we are working to reduce water usage at Nissan's Global Headquarters in Japan, by processing rainwater and wastewater from kitchens and other internal sources and reusing it for purposes other than drinking. In recognition of these activities, Nissan has been awarded as an A-List company, the highest CDP ranking for the sixth consecutive year in the water security category.





Chennai Plant, honored by the CII.

## Water Positive initiatives at the Chennai Plant in India

In India, where the handling of water resources has a significant impact on people's lives, our manufacturing plant has installed water treatment facilities using a reverse osmosis (RO) membrane to reduce water usage. After treating domestic wastewater, it is reused as cooling for the manufacturing process and cooling towers. As a result, we are able to reduce consumption by approximately 78,000 kiloliters of water per year, which is equivalent to the amount of water used by about 320,000 households a day.

In addition, India is working to revitalize lakes and ponds around its plants with consideration of the use of water



Water Positive certificate (Platinum category)

in the local communities regarded as important. India completed the revitalization of Sitheri Lake in 2020 and committed to revitalizing eleven lakes and ponds, including Oragadam lake which is the primary source of water for six villages, in 2023. Dredging and increasing the capacity of lakes and ponds contributes to securing drinking water and sustains biodiversity. In February 2024, Nissan obtained the highest Platinum category certification under the Water Positive initiative, following a rigorous third-party assessment of our comprehensive water strategy, which includes the implementation of water-related positive activities such as reducing water use at plants and revitalizing ponds and lakes around manufacturing facilities.



The revitalized Uthukuttai pond

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### Water intake for corporate activities\*1

In fiscal year 2024, water intake for our global corporate activities was 16,873 thousand m³, the same level as 17,794 thousand m³ in fiscal year 2023.

In fiscal year 2024, water intake from global production sites was 15,761 thousand  $m^3$ , the same level as 16,620 thousand  $m^3$  in fiscal year 2023.

(FY)

		( ,
	2023	2024
Total	17,794	16,873
Japan	10,724	10,086
North America	4,409	4,321
Europe	1,380	1,402
Other	1,281	1,064

(Unit: thousand m<sup>3</sup>)

## Water discharge from corporate activities\*1

The total amount of water discharged in global corporate activities in fiscal year 2024 was 12,831 thousand m³, the same level as 13,405 thousand m³\*¹ in fiscal year 2023.

(FY)

		(1 1)
	2023	2024
Total	13,405	12,831
Japan	9,448	9,132
North America	2,837	2,669
Europe	724	706
Other	396	324

(Unit: thousand m<sup>3</sup>)

Water quality

Chemical oxygen demand (COD*2)	24,811	22,536

(Unit:kg)

Nissan thoroughly processes wastewater at its various plants. Wastewater from its plants in Mexico and India plants, is used to maintain landscaping on the sites. We are also strengthening water pollution prevention measures at our Japanese plants. In preparation for unexpected occurrences, such as a discharge of oil, we have attached water quality sensors to the discharge points of wastewater treatment facilities. The discharge of water outside the sites is automatically suspended if water quality problems are detected. We will also install water quality sensors in rainwater drainage outlets, and strengthen our water pollution prevention measures to prevent wastewater with abnormal water quality from being externally discharged outside during heavy rain. We are working to secure investment in these systems while also developing technologies for substances that are difficult to detect with sensors using current technologies.

## Water consumption in corporate activities\*1\*3

The total amount of water consumed in global corporate activities in fiscal year 2024 was 4,042 thousand m³, a decrease from 4,390 thousand m³\*1 in fiscal year 2023.

		(1 1)
	2023	2024
Total	4,390	4,042
Japan	1,277	953
North America	1,572	1,653
Europe	656	696
Other	885	740
		(1.1.11.11.11.1.0)

(Unit: thousand m<sup>3</sup>)

(FY)

## Air quality: Achievements

### Plant emission management

In Japan, we have promoted strict countermeasures for emissions of nitrogen oxides (NOx) and sulfur oxides (SOx) as air pollutants.

We have lowered NOx and SOx emissions by introducing low-NOx burners in the ovens and boilers that provide heat for painting lines, and by switching the fuel used by those burners from heavy oil and kerosene to alternatives with low SOx emissions.

From a carbon-neutral perspective, facilities that use fuel will be increasingly electrified. As a result, emissions from production plants are expected to be further reduced. We will continue to implement appropriate management on an ongoing basis.

### Reducing VOCs from production processes

Volatile organic compounds (VOCs), which readily evaporate to become gaseous in the atmosphere, account for approximately 90% of the chemicals generated from our vehicle production processes. Lowering VOC emissions is a challenge that we are addressing. We strive to increase our recovery of cleaning solvents and other chemicals to limit the amounts of these substances emitted from our plants ahead of the implementation of new regulations in each country where we operate, while also advancing planned measures to increase the recycling rate for waste solvents. We are also introducing water-based paint lines that limit VOC emissions to less than 20 grams per square meter of painted surface. We have adopted these lines in the Nissan Motor Kyushu Plant, plants in Aguascalientes in Mexico, the Resende Plant in Brazil, the Smyrna Plant in the U.S.A., the Huadu Plant in China, and the Sunderland Plant in the U.K. Nissan will continue to manage VOCs at manufacturing sites.

<sup>\*1</sup> From fiscal year 2023 performance data, the scope of calculations is aligned with the consolidated financial group. Performance data up to and including fiscal year 2022 includes non-consolidated companies.

<sup>\*2</sup> Four sites of Nissan Motor and Nissan Motor Kyushu

<sup>\*3</sup> Based on GRI 303, total water consumption is total water withdrawn minus total water discharged as calculated by Nissan.

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# Collaborations with relevant partners

Nissan faces various risks in its operations, including climate change, the depletion of material and energy resources, and loss of biodiversity. To properly ascertain these environmental risks, it is important to build relationships of trust and engage in dialogue with both direct and indirect partners, such as customers, government agencies, companies including suppliers, investors, NGOs and NPOs. Nissan will reflect the identified risks and uncovered opportunities through such dialogue in its business activities. The aim is to minimize Nissan's negative impact on the environment while maximizing its positive impact, thereby achieving a sustainable society and business continuity.

### Collaborations with customers

### Nissan Zero Emission Fund

The Nissan Zero Emission Fund\*¹ aggregates the amount of CO₂ emissions avoided when participating customers drive their EVs, then monetizes it under the J-Credit system. The funds will then be returned to society and EV owners through activities related to decarbonization. In fiscal year 2024, a portion of past funds from credit certification and sales were used\*² for forest conservation and tree planting activities in Biei-cho, Hokkaido. In the future, Nissan will continue using this fund for social activities aimed at decarbonization, including forest

conservation, environmental education, and support for the adoption of EVs.



# Further alignment with governments and partner companies

Since 2006, Nissan has set medium-term goals under the Nissan Green Program and made efforts to move closer to a society that can realize its environmental philosophy of "a Symbiosis of People, Vehicles and Nature" by ensuring these goals are achieved. When the Paris Agreement was adopted at COP21 in 2015, we recognized the importance of the common goals of "holding the increase in the global average temperature to well below 2°C, and pursuing efforts to limit the temperature increase to 1.5°C above preindustrial levels." We reaffirmed the consistency between these goals and Nissan's long-term vision. Recognizing the need to enhance our vision based on the IPCC special report published in January 2021, we declared the goal of achieving carbon neutrality across product life cycles, including business operations, by 2050. In November 2021, we announced

Nissan Ambition 2030, which involves the promotion of electrification initiatives combined with ambitious actions. Creating an EV ecosystem requires cooperation with a wide range of partners, including national and local governments, and companies in other industries. In terms of cooperation with government, Nissan has participated in the GX League\*3 since the beginning of 2022 to expand opportunities for cooperation and enhance the effectiveness of climate change initiatives.

Additionally, as shown in the table below, we reviewed the climate change stance of the automotive industry associations to which we belong and confirmed that they are aligned with the direction Nissan aims to pursue. Through the activities of these automotive industry associations, we will continue to collaborate within the automotive industry and take on the challenge of carbon neutrality together with our partners.

### Results of reviews of stances at industry organizations of which Nissan is a member

Group	Paris Agreement Stance (the source)	Nissan Stance Aligned with Paris Agreement
Japan Automobile Manufacturers Association (JAMA)	All out to achieve carbon neutrality (CN) in 2050 CN by 2050 is not achievable without breakthrough technologies, premised on inexpensive and stable CN electricity and requiring strong support incl. policy and financial measures (April 8, 2021: Probing deeper into energy conservation, issues and requests targeting CN in 2050)	<ul> <li>JAMA's goal of CN in 2050 aligned with Paris Agreement goals and Nissan's vision</li> <li>CEO Ivan Espinosa is the JAMA vice chair, Nissan executive officers are subcommittee chairs</li> <li>Developing fair and equitable LCA evaluations for autos focused on CN, promoting international LCA standardization through its subcommittee</li> <li>Nissan and JAMA aligned and will continue to cooperate toward CN in 2050</li> </ul>
Japanese Business Federation (Keidanren)	Environment is the foundation of business activities and daily life; a sustainable society is the business community's top concern     Keidanren works with the government toward "CN by 2050" with unwavering determination (December 15, 2020: Toward CN by 2050 ("Society 5.0 with CN") Determination and Actions of the Business Community)	Confirmed Keidanren's goal of CN in 2050 is consistent with Paris Agreement and Nissan's vision Nissan and Keidanren aligned and will continue to cooperate toward CN in 2050

<sup>\*1</sup> Click here for more information on the Nissan Zero Emission Fund. (Japanese only) https://n-link.nissan.co.jp/MANUAL/EV/ZEFUND/index.html

<sup>\*2</sup> Click here for more information. (Japanese only) https://global.nissannews.com/ja-JP/releases/240624-01-j

<sup>\*3</sup> Click here for more information on the GX League. https://gx-league.go.ip/en/

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## Collaborations with suppliers

# Policies and approaches to supplier management

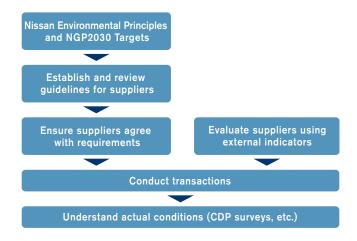
Nissan believes that collaboration with suppliers is essential for achieving its environmental targets. To this end, we are working with suppliers to promote activities that reduce environmental impacts, including the formulation of guidelines, the holding of briefings, understanding the actual status of activities, and joint technological developments. In 2008, Nissan published the Nissan Green Purchasing Guidelines. The guidelines are reviewed and updated on an ongoing basis to reflect evolving societal expectations and environmental challenges. By sharing a common understanding of Nissan's environmental philosophy, our medium- and long-term environmental targets, and requirements for suppliers, we are mitigating the environmental footprint caused by suppliers and promoting responsible procurement.



Environmental activity briefing meeting

## Supplier Selection Process and Environmental Considerations

When selecting suppliers, we incorporate environmental considerations into our evaluation criteria, and do business with suppliers that agree to meet the requirements set forth in Nissan's guidelines.



## Working with suppliers to promote improvement activities

### Environmental data surveys at supplier facilities

In 2012, Nissan began conducting surveys of supplier environmental data, and in 2014 we adopted the supply chain program developed by the international non-profit organization CDP. We conduct surveys related to climate change and water at supplier facilities that are chosen based on transaction amount, company size, and other factors. Based on survey results, we are encouraging some suppliers to improve their environmental initiatives. (Fiscal year 2024 response rate: 78%)

### CO<sub>2</sub> emission reduction activities with suppliers

To promote environmental impact reduction activities in the supply chain, Nissan obtains CO<sub>2</sub> emissions information from suppliers and conducts comparative assessments among them. With suppliers who wish to do so, we share information on CO<sub>2</sub> reduction progress as well as on Nissan's expected values and improvement measures to encourage further CO<sub>2</sub> reduction activities at their sites.

In terms of collaboration with suppliers, we will promote the use of low-CO<sub>2</sub> aluminum for parts that use aluminum as a raw material in all vehicles produced starting from fiscal year 2027 onwards.

### Requirements for suppliers under the Nissan Green Purchasing Guidelines

Climate change	Resource Dependency	Air quality and water	Foundational enhancements
CO <sub>2</sub> emissions reduction activities (the following are perspectives on activities)  · Establish a promotion system  · Calculate entire supply chain CO <sub>2</sub> emissions  · Plan and promote CO <sub>2</sub> reduction plans  · Set science-based CO <sub>2</sub> reduction targets  · Disclose information based on frameworks  Provide information on CO <sub>2</sub> emissions	· Promote the use of sustainable materials · Report the use of sustainable materials	<air quality=""> Comply with and manage legal regulations, Nissan standards, and policies Provide information <water> Reduce water usage Manage wastewater quality Respond to water surveys</water></air>	Establish environmental management     Designate managers for environmental impact     Manage suppliers     Respond to audits     Provide information on life cycle assessments     Response to environmental surveys

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### Independent Practitioner's Limited Assurance Report

To the Representative Executive Officer, President and CEO of Nissan Motor Co., Ltd.

#### Conclusion

We have performed a limited assurance engagement on whether selected environmental performance indicators (the "subject matter information" or the "SMI") presented in Nissan Motor Co., Ltd.'s (the "Company") Sustainability data book 2025 (the "Sustainability data book") for the year ended March 31,2025 have been prepared in accordance with the criteria (the "Criteria"), which are established by the Company and are explained in its Sustainability data book. The SMI subject to the assurance engagement is indicated in the Report with the symbol "\*".

Based on the procedures performed and evidence obtained, nothing has come to our attention to cause us to believe that the Company's SMI for the year ended March 31,2025 is not prepared, in all material respects, in accordance with the Criteria.

#### **Basis for Conclusion**

We conducted our engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised), Assurance Engagements Other Than Audits or Reviews of Historical Financial Information, and International Standard on Assurance Engagements (ISAE) 3410, Assurance Engagements on Greenhouse Gas Statements, issued by the International Auditing and Assurance Standards Board (IAASB). Our responsibilities under those standards are further described in the "Our responsibilities" section of our report.

We have complied with the independence and other ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Report for Accountants (IRSRA)

Our firm applies International Standard on Quality Management (ISQM) 1, Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements, issued by the IAASB. This standard requires the firm to design, implement and operate a system of quality management, including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

### Other information

Our conclusion on the SMI does not extend to any other information that accompanies or contains the SMI (hereafter referred to as "other information"). We have read the other information but have not performed any procedures with respect to the other information.

### Responsibilities for the SMI

Management of the Company are responsible for:

- designing, implementing and maintaining internal controls relevant to the preparation of the SMI that is free from material misstatement, whether due to fraud or error;
- selecting or developing suitable criteria for preparing the SMI and appropriately referring to or describing the criteria used; and
- preparing the SMI in accordance with the Criteria.

### Inherent limitations in preparing the SMI

As described in Sustainability data book, GHG emissions quantification is subject to uncertainty when measuring activity data, determining emission factors, and considering scientific uncertainty inherent in the Global Warming Potentials. Hence, the selection by management of a different but acceptable measurement method, activity data, emission factors, and relevant assumptions or parameters could have resulted in materially different amounts being reported.

### Our responsibilities

We are responsible for:

- planning and performing the engagement to obtain limited assurance about whether the SMI is free from material misstatement, whether due to fraud or error;
- forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained;
   and
- reporting our conclusion to the Company's management.

Summary of the work we performed as the basis for our conclusion

We exercised professional judgment and maintained professional skepticism throughout the engagement. We designed and performed our procedures to obtain evidence about the SMI that is sufficient and appropriate to provide a basis for our conclusion. Our procedures selected depended on our understanding of the SMI and other engagement circumstances, and our consideration of areas where material misstatements are likely to arise. In carrying out our engagement, the procedures we performed primarily consisted of:

- assessing the suitability of the criteria applied to prepare the SMI;
- conducting interviews with the relevant personnel of the Company to obtain an understanding of the key processes, relevant systems and controls in place over the preparation of the SMI;
- performing analytical procedures including trend analysis;
- identifying and assessing the risks of material misstatements;
- performing a site visit at Oppama Plant of the Company which was determined through our risk assessment procedures;
- performing, on a sample basis, recalculation of amounts presented as part of the SMI;
- performing other evidence gathering procedures for selected samples; and
- evaluating whether the SMI was presented in accordance with the Criteria.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

/s/ Kenichiro Sato

Kenichiro Sato, Engagement Partner KPMG AZSA Sustainability Co., Ltd. Tokyo Office, Japan

July 10, 2025

Notes to the Reader of Assurance Report:

This is a copy of the Assurance Report and the original copies are kept separately by the Company and KPMG AZSA Sustainability Co., Ltd.

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[Remarks] Basis of calculation for CO<sub>2</sub> emissions subject to third-party assurance

- CO<sub>2</sub> emissions from Nissan Motor Co., Ltd. and consolidated subsidiaries: Calculated based on Nissan internal standards referencing the GHG Protocol. The energy input data of each site is based on invoices from suppliers, which are multiplied by publicly available CO<sub>2</sub> emission coefficients for Nissan Motor Co., Ltd. and each of its consolidated subsidiaries.

  [Electricity]
  - · Japan: Adjusted emission factors in the "List of Emission Factors by Electricity Suppliers (for submission in 2024)" published by the Ministry of the Environment
  - · Other than Japan: Emission factors for each electricity supplier based on local contracts are used. If emission factors for each electricity supplier are not available, country-specific emission factors from IEA emission factors are used.

[Other than electricity]

- · Japan: Emission factors listed in the "List of Calculation Methods and Emission Factors of the Greenhouse Gas Emissions Calculation, Reporting, and Disclosure System" published by the Ministry of the Environment
- · Other than Japan: Emission factors published by each country
- CO<sub>2</sub> emissions from purchased goods & services: The calculation formula has been revised based the fiscal year 2024 results. For each major product in the segments defined based on vehicle size and powertrain, the amount of CO<sub>2</sub> emissions per vehicle was calculated by applying data from Sphera Solutions Inc.'s GaBi database to the input volume of raw materials per vehicle. This figure was then multiplied by the global annual sales volume (partially including production volume) in fiscal year 2024 to determine the total CO<sub>2</sub> emissions.

- CO<sub>2</sub> emissions from the use of sold products: The calculation formula has been revised based on the fiscal year 2024 results. Calculated using the average regional CO<sub>2</sub> emissions per vehicle multiplied by the regional estimated average life cycle mileage and multiplied by fiscal year 2024 sales volumes.
  - The average CO<sub>2</sub> emissions for the use phase were calculated using the Well-to-Wheel (WtW) factors defined in the Global Logistics Emissions Council (GLEC) Framework, covering the range from fuel extraction to tire movement. For each of our main regions (Japan, the U.S.A., EU and China), market-specific average was used and extrapolated from the average emissions of these markets for other markets. Estimated average lifetime mileages until end of life were set based on published country-by-country market average lifetime mileage data.
- Quantification of CO<sub>2</sub> emissions is subject to uncertainties related to the measurement of activity data, the determination of emission factors, and scientific uncertainty involved in the determination of global warming potential (GWP).