Environmental

ENVIRONMENTAL POLICIES AND PHILOSOPHY

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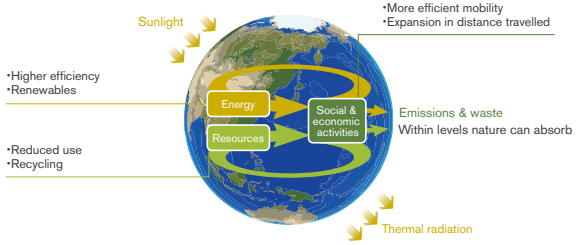
Environmental Principles

As we strive to understand the environment better, all of us at Nissan bring to our activities a shared concern for people, society, nature and the earth. This commitment and concern is embodied in every Nissan product and in all of the company's operations, including sales, as the driving force of Nissan's ongoing contributions to a better society.

We provide customers with innovative products and services, by promoting the effective use of energy and resources, by diversifying our sources and making active use of renewable energy and recycled materials. These are just some of the ways in which Nissan is striving to achieve “a Symbiosis of People, Vehicles and Nature.”

To this end, we have clearly defined our ultimate goal: “To reduce the environmental impact and resource consumption of our corporate operations and vehicles throughout their lifecycle to a level that can be absorbed naturally by the Earth.” and set what we want to be. This means endeavoring to leave as small an ecological footprint as possible.

Nissan’s Environmental Philosophy :
A Symbiosis of People, Vehicles and Nature



* Based on Beyond Growth: The Economics of Sustainable Development, by Herman E.

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 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.

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.

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Nissan's Understanding of Environmental Issues

Environmental and social issues are attracting more and more attention in recent years. With the world's population expected to reach 9 billion by 2050, society faces problems in areas such as poverty and hunger, energy, climate change and various conflicts. Among these, the problem of climate change is considered to be the cause of widespread natural disasters that occur frequently all over the world every year, thus it is more necessary than ever to curb the effects of climate change. To address these issues, the United Nations adopted a resolution in September 2015 titled "Transforming Our World: the 2030 Agenda for Sustainable Development." The Agenda contains 17 Sustainable Development Goals (SDGs) and 169 targets, and there are high expectations that corporations as well as nations will play a major role in realizing the SDGs. Nissan supports the SDGs, as it recognizes the growing importance of delivering safe, secure and sustainable mobility for all and providing value to society.

The auto industry is dependent on the global environment in complex and diverse ways, while also having significant impact on the environment. Nissan is tackling a range of issues to promote sustainability by advancing measures to 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. We are also improving our business to reduce our dependence on fossil fuels.

As a global automaker, we take active steps to identify the direct and indirect environmental impacts of our activities, working with business partners and society to minimize the negative impacts of our products and services throughout their lifecycle. We acknowledge that our activities and efforts must be continuously improved and advanced; we seek to provide greater value for society by delivering sustainable mobility for all while alleviating environmental impacts associated with climate change, natural resource dependency, water use and other issues.

We decide which environmental priorities we address and our level of engagement based materiality assessments in light of social trends and consultations with various stakeholders.

* Click here for more information on how Nissan supports the SDGs.

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Nissan's Strategic Approach to Environmental Issues

To positively contribute to the resolution of global environmental issues, Nissan believes in the importance of listening to various voice from society and undertaking an assessment process to identify priority issues. These materiality assessments involve analyzing latent opportunities and risks, determining material issues that are of mutual relevance to Nissan and our stakeholders, contributing to the formulation of medium- and long-term environmental strategies.

In considering environmental materiality, we applied the methods of the Corporate Ecosystem Services Review (ESR),* 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). As a result, we specified three priority areas on which we should focus as an automaker: Procurement of

Energy, Procurement of Material Resources and Usage of Water Resources. A fourth area that is linked directly to people's health Air Quality was cited as being within the scope of consideration, as the swelling of urban populations and economic development are often accompanied by deteriorating air quality. These were analyzed internally in terms of opportunities and risks for Nissan with reference to the 2030 Agenda for Sustainable Development, centered on the SDGs, as well as the discussions at the World Economic Forum, the Paris Agreement adopted at the 21st Conference of the Parties (COP21) and other global agendas. Moreover, through direct discussions with international environmental experts, investors and NGOs/NPOs, as well as through separate dialogues with our Alliance partners, we subsequently identified environmental materiality for Nissan. Environmental materiality corresponds to the objectives of the SDGs, and Nissan's approach contributes to the realization of the SDGs.

* Click here to read "Ecosystem Services and the Automotive Sector," a report outlining the conclusions of the Corporate Ecosystem Services Review conducted by Nissan. https://www.nissan-global.com/EN/DOCUMENT/PDF/ENVIRONMENT/SOCIAL/ecosystem_services_and_the_automotive_sector.pdf

Materiality Analysis (Environment) and SDGs Comparison

Materiality	SDGs	Nissan Principal Approach
Fuel economy	3 GOOD HEALTH AND WELL-BEING	Lower vehicle emissions, improve in-cabin air quality
Transition and physical risks induced by climate change	6 CLEAN WATER AND SANITATION	Reduce water consumption and manage water quality
Electrification	7 AFFORDABLE AND CLEAN ENERGY	Reduce CO_2 emissions from vehicles and corporate activities
Introduction of renewable energy at facilities	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Vehicle to Everything (V2X) power management
Promotion and development of MaaS (Mobility as a Service)*	11 SUSTAINABLE CITIES AND COMMUNITIES	Expand autonomous drive and other technologies
Energy efficiency at facilities	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Effective use of resources
Reduce, reuse, recycle	13 CLIMATE ACTION	Reduce CO_2 emissions from vehicles and corporate activities
Resource efficiency	14 LIFE BELOW WATER	Appropriate management of chemical substances
Chemical substance management	15 LIFE ON LAND	Reduce water consumption and manage water quality
Material sourcing	17 PARTNERSHIPS FOR THE GOALS	Collaborations with stakeholders such as local governments and NGOs
Emissions from products, in-cabin air quality		
Human health		
Emissions from facilities		
Water use at facilities		
Wastewater and landfill management		
Ecosystem services and biodiversity		
Stakeholder engagement		
Occupational health and safety		

* MaaS (Mobility as a Service): Car sharing and other mobility services that do not require actual car ownership.

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Scenario Analysis to Strategies for 2050 Society

Nissan's efforts toward the environment have achieved continuous results by consistently reaching milestones back-casted from our Long-term Vision. However, compared to 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, thus 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 assumes 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 the opportunities and risks posed by climate change in the following four steps.

- 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.
- Categorizing main drivers into physical risks and transition risks, then considering the trade-off relationships of each, we confirmed the degree of risk in three scenarios where the average temperature on Earth increased by 1.5° C, 2° C and 4° C.
- 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.
- Changes, conditions, and effects were adjusted in each scenario to provide guidance based on qualitative evaluation of the elements necessary for enhancing strategies.

As a global automobile company, the production facilities and market for our products will be 170 markets globally, and the effects of climate change will not be limited to Japan. When taking a comprehensive perspective of this scenario analysis, even the market infrastructure, regulations and actual usage are different, Nissan's electrification and other related advanced technologies have the potential to create opportunities for effective capabilities in scenarios other than 2° C Nissan has come to recognize once again the importance of further accelerating efforts toward this realization as well as the fact that activities integrated with the supply chain are essential for responding to risks.
In particular, the expansion of zero-emission vehicles is not only a major step towards the shift to a carbon-free society as an automobile sector, it is also a technology that contributes to the resilience of society in power management and disaster mitigation and prevention. Nissan believes this will create value for society and business.
However, if the societal response to climate change is delayed, possible risks include transition risks such as additional policies and regulations for a decarbonized society, increases in R&D efforts and changes in market demand or corporate reputation among other transition risks, and physical risks such as an increase in abnormal weather and rising sea levels may lead to cost increases and declines in vehicle sales that have the potential

to substantially influence on our financial situation.
To avoid risks such as these to the extent possible and create future opportunities, Nissan is leveraging knowledge gained from scenario analysis for use in actual activities and reviewing strategies for expanding resilience.
We will continue to implement these initiatives by embodying our vision for 2030, further enhancing the disclosure of information and placing importance on dialogues with our stakeholders.

Envisioned scenarios and associated opportunities and risks

Scenario Assumption	Area of impact	Business Activity Opportunities and Risks Related to Ongoing Climate Change
1.5°C	Policies and regulations	Respond to further tightening of vehicle fuel efficiency and exhaust gas regulations, develop electric powertrain technologies and increase production costs
		Increased burden of energy costs due to expansion of carbon taxes, expand investment in energy-saving equipment as policy
	Technological changes	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
		Increased demand will affect supply chains for rare earth metals used for in-vehicle battery material and cause an increase in stabilization costs
	Market changes	Changes in consumer awareness leads to reduce new vehicle sales due to the selection of public transportation and bicycles and the transition to mobility services.
	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)
4°C	Extreme weather	The impact on the supply chain and the operation of production bases due to extreme weather such as heavy rain and drought will increase in property insurance costs and air conditioning energy costs
	Opportunities	The need for securing emergency power sources using EV batteries is increasing as a disaster prevention and mitigation measure

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Building a Resilient Climate Change Strategy

The incremental move toward decarbonization could generate major new risks for businesses. In addition to transition risks resulting from changes in policies and regulations, technologies, markets and reputation, there are also growing physical risks, as climate change raises the frequency of extreme weather conditions. Recognizing climate change as a risk for the financial system, the G20 Financial Stability Board established the Task Force on Climate-related Financial Disclosures (TCFD) to encourage disclosures that would enable investors to make informed decisions. In its June 2017 final report, the Task Force proposed a recommendations framework for information disclosure.

Nissan considers climate change to be an issue that goes to the heart of its operations. The Global Environmental Management Committee (G-EMC), co-chaired by a board member, identifies trends in climate-related risks and business opportunities and adopts strategies accordingly. Climate change and other environmental risks comprise a category of risks for corporate management and are regularly monitored by the Internal Control Committee to strengthen corporate governance.

A scenario analysis*1 is conducted on transition risks, physical risks and opportunities due to climate change based on the 4° C and 1.5° C scenarios created by the International Energy Agency (IEA) and IPCC 1.5° C Special Report. We specified as major risks tighter regulations on fuel economy and CO_2 emissions, intensifying competition in the EV market and physical damage due to extreme weather conditions. We determine specific measures to be taken by each division after clarifying the risks and opportunities—including those relating to climate change—for our company. Additionally, climate change also greatly heightens customer needs for energy-efficient mobility. We are meeting those needs by clearing stringent CO_2 emissions regulations, as outlined in the NISSAN NEXT*2 transformation plan calling for annual aggregate sales of 1 million 100% EV and e-POWER vehicles by fiscal 2023. In our corporate activities, we are actively advancing energy-saving measures, shifting to climate-efficient logistics and introducing renewable energy sources.

Based on these risks and opportunities, Nissan announced it will achieve carbon neutrality in the vehicle life cycle by 2050 as a long-term vision*3 for climate change. We will realize a carbon-neutral future by promoting the electrification of automobiles and pursuing the sustainability of our business activities in line with the expansion of renewable energy and charging infrastructure in society. To achieve this, from the early 2030s, all new models introduced in major markets will be electrified. In establishing and implementing the medium-term environmental action plan NGP2022*4 up to 2022 for realizing our long-term vision, we formulate various future climate change scenarios and strengthen the resilience of our climate change strategy. In addition, to convey information to investor and other stakeholders in an easily understandable manner, Nissan supports TCFD recommendations and strives to disclose information in line with the TCFD recommended framework.

*1 Details on Climate Change Scenario Analysis
Strengthening Strategies for 2050 Society Using Climate Change Scenario Analysis
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*2 Click here for more information on NISSAN NEXT
https://www.nissan-global.com/EN/IR/MIDTERMPLAN/

*3 Long-term vision for climate change:
>>> P014
* Products: Life cycle carbon neutral by 2050
Click here for more information on Policies and Philosophy for Product Initiatives.
>>> P059

* Strengthening Strategies for 2050 Society Using Climate Change Scenario Analysis
>>> P049
* Corporate activities: Carbon neutral vehicle life cycle by 2050
Details are posted on the page of "Policies and Philosophy for Corporate Activity Initiatives"
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*4 Click here for more information on the Nissan Green Program 2022 (NGP2022)
https://www.nissan-global.com/EN/ENVIRONMENT/GREENPROGRAM/FRAMEWORK/
* Climate change indices, targets and achievements, along with Scope 1, 2 and 3 emissions are contained in this report under "NGP2022 Framework and Action Plan," "Product Initiative: Achievements" and "Environmental Data."

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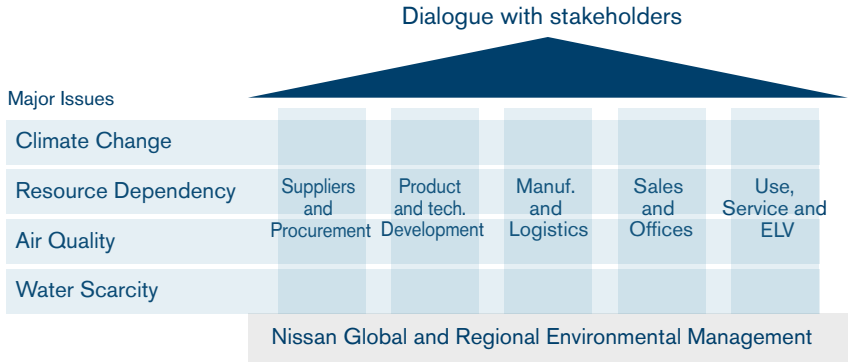
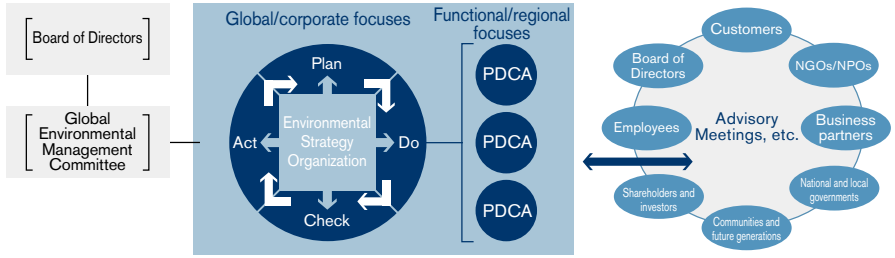
Global Environmental Management Framework and Governance System

To promote comprehensive environmental management as a global company while responding to a diverse array of environmental issues, Nissan has a governance system built on dialogue and partnership with each region and many corporate functions, as well as with a variety of stakeholders.
The Global Environmental Management Committee (G-EMC), co-chaired by a board member, determines overall policies and the content of reports put before the Board of Directors. Its meetings are attended by corporate officers chosen based on the issues to be discussed. Executives also clarify risks and opportunities at the corporate level and determine the specific programs to be undertaken by each division, using the PDCA cycle to manage and operate the environmental programs efficiently. Environmental risks are regularly reported in the Internal Control Committee meetings to strengthen corporate governance.
Corporations today are expected to disclose their environmental initiatives and related decisions in a reliable and transparent manner. We actively communicate with a broad range of stakeholders through our Sustainability Report and by answering inquiries from various environmental rating agencies.

Global Environmental Management Framework



Environmental Management Organization



Environmental Action Plan: Nissan Green Program (NGP)

We first announced 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" and to ultimately reduce our environmental dependence and impact to levels that nature can absorb. Under NGP2016, launched in fiscal 2011, we fully achieved our targets for the four key initiatives of zero-emission vehicle penetration, fuel-efficient vehicle expansion, corporate carbon footprint minimization and natural resource use minimization. New plan NGP2022 was launched in fiscal 2017.

* Click here for more information on NGP2022.
https://www.nissan-global.com/EN/ENVIRONMENT/GREENPROGRAM/FRAMEWORK/

Evolution of NGP

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NGP2022 Key Issues and Challenges

Based on environmental materiality analysis, Nissan has identified “climate change,” “air quality,” “resource dependency” and “water scarcity ” as important issues under NGP2022. Furthermore, in order to contribute to the resolution of these four important issues and create new value, we are also working to strengthen the business foundation related to environmental issues through stakeholder engagement aimed at understanding the needs of stakeholders.
NGP2022 discloses indicators and progress on initiatives related to the four identified material issues every year. In addition to the development and production departments involved in car manufacturing, the sales and service departments and Nissan as a whole are also accelerating efforts related to environmental issues while strengthening our business foundation and working to create social value.
Under NGP2022, we will take on the challenge of addressing the following key issues, striving not just to attain compliance but also to meet society’s expectations and to realize our long-term vision.

- Climate Change: We aim for carbon neutrality Promote society’s decarbonization through vehicle electrification / intelligence and innovative future *monozukuri*
- Resource Dependency: We aim to eliminate the use of new material resource Create systems that use resources efficiently and sustainably, and provide services able to use vehicles more effectively (circular economy)
- Air Quality: We aim for zero impact ,Ensure cleaner exhaust emissions and create a comfortable in-cabin environment to protect human health and reduce the impact on ecosystems
- Water Scarcity: We aim for zero stress ,Reduce water consumption and manage water quality with *monozukuri* that is considerate of impact and dependency on ecosystems

NGP2022 Action Plan

	Activities	NGP2022 Objectives	FY2020 Results
Climate change (Product)			
Long-term vision: Realize carbon neutrality by 2050			
1	Product CO_2 emission reduction	40% reduction of CO_2 emissions from new cars (vs. FY2000; Japan, U.S., Europe and China)	Reduced by 37.4%
2	Solid EV leadership	—	Nissan LEAF is the first global mass market EV and accumulated sales over 500,000 units. Start pre order of new EV[ARIYA] with advanced technologies
3	Support driver's behavior	Pilot program with connected cars	Activities underway
4	Expansion of vehicle usage	Global expansion of V2X for energy management (Japan, U.S. and Europe)	Promoted expansion of usage
Climate change (Corporate)			
Long-term vision: Realize carbon neutrality by 2050			
5	Overall reduction of CO_2 emissions from corporate activities	30% reduction of CO_2 emissions per vehicle sold (vs. FY2005; global)	Reduced by 33.7%
6	Reduction of CO_2 emissions at manufacturing sites	36% reduction of CO_2 emissions per vehicle produced (vs. FY2005; global)	Reduced by 29.7%
7	Reduction of CO_2 emissions of logistics	12% reduction of CO_2 emissions per production (vs. FY2005; Japan, North America, Europe and China)	Reduced by 27.8%
8	Reduction of CO_2 emissions at offices (including R&D sites)	12% reduction of CO_2 emissions per floor area (vs. FY2010)	Reduced by 16.3%
9	Reduction of CO_2 emissions at dealers	12% reduction of CO_2 emissions per floor area (vs. FY2010; Japan)	Reduced by 19.1%
10	Expansion of renewable energy use	Expansion of renewable energy introduction	Consumption rate of renewable energy at manufacturing plants 10.5%
Air quality			
11	Cabin air quality improvement	Promotion of research on technical solutions	Activities underway
12	Reduction of VOC emissions at manufacturing sites	Promotion of VOC emission reduction per paint area (vs. FY2010)	Reduced by 36.8%
Resource dependency			
Long-term vision: Reduce dependency on new materials by 70%			
13	Development of biomaterials	Promotion of research on technical solution	Development underway

	Activities	NGP2022 Objectives	FY2020 Results
14	Proper use of chemical substances	Implementation of the Alliance policy on chemical substance management	Strengthened Alliance policy and continued steady implementation
15	New resource usage minimization	30% reduction of new natural resource usage per vehicle	Promoted activities toward NGP2022 target
16	Expansion of remanufactured parts	Duplation of remanufactured item coverage (vs. FY2016)	Promoted activities toward NGP2022 target
17	Expansion of battery reuse	Expansion of the EV battery reuse business	Promoted EV battery reuse
18	Adoption of die-less forming	Plan and implement technical development	Start adoption to heritage parts
19	Waste reduction (manufacturing)	BAU 2% (Japan) and BAU 1% (overseas) reduction of waste	Reduced by 7.4%(Japan) Reduced by 4.4%(overseas)
20	Waste to landfill reduction (manufacturing)	Landfill ratio reduction	Reduced waste to landfill ratio to3.4% (global)
	Water scarcity		
21	Water withdrawal reduction (manufacturing)	21% reduction of water withdrawal per global production (vs. FY2010)	Reduced by 15.6%

	Business foundations		
22	Governance enhancement	Implementation of our environmental compliance policy	Adhered to environmental compliance policy
23	Further application of LCA	Measure lifecycle environmental impact of vehicle and new technology	Continue to measure lifecycle environmental impact for new launched products in 2020.
24	Engagement with suppliers	Implementation of environment data survey to promote engagement and reduce environmental impact	Promote supplier engagement globally through CDP survey
25	THANKS activities promotion	Further promotion of Supplier THANKS activities	Continued to promote THANKS activities
26	Nissan Green Purchasing Guidelines	Adoption of updated policy	Strengthen the Nissan Green Purchasing Guidelines and its adoption
27	Education program for the next generation	Global expansion of Nissan Waku-Waku Eco school program	Distribute DVD of Nissan Waku-Waku Eco school and conduct online program
28	Collaboration with NGOs for ecosystem conservation	Enhancement of collaboration and partnerships with NGOs	Participated in campaign sponsored by WWF Japan, continued joint projects with Conservation International

CLIMATE CHANGE

STRATEGY FOR ADDRESSING CLIMATE CHANGE

GRI103-1 GRI103-2

Toward a Carbon-Neutral Society

In 2015, the United Nations Climate Change Conference (COP21) adopted the historic Paris Agreement to keep the increase in global temperature to "well below" 2° C.
At COP24, held in 2018, parties agreed on concrete guidelines to achieve the goals of the Paris Agreement, namely, to peak-out global greenhouse gas (GHG) emissions as early as possible and to strike a balance between GHG emissions from human activity and carbon absorption by nature by the second half of this century.
The United Nations' Sustainable Development Goals (SDGs), announced as part of its 2030 Sustainable Development Agenda in 2015, the same year as the Paris Agreement, set goals for climate actions. Nissan is responding to these developments by focusing on electrification and other innovative technologies and by promoting decarbonization through reductions in CO_2 emissions throughout the value chain, including by suppliers.

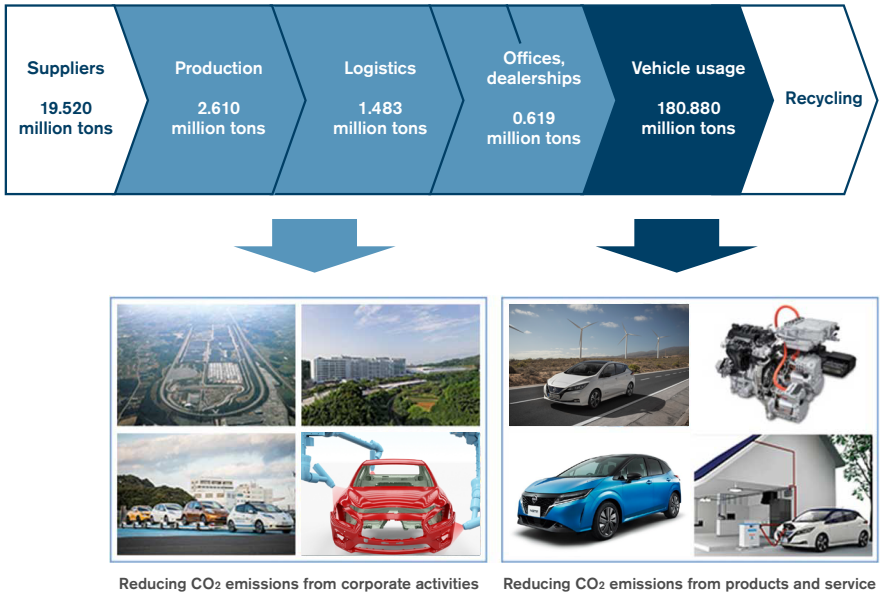
Nissan's Steps to Reduce CO_2 Emissions

The business structure of the automobile industry is changing greatly in the face of demands to reduce CO_2 emissions and dependence on fossil fuels. Nissan has been proactively engaged in environmental responsiveness and the creation of social value, such as reducing CO_2 emissions and realizing the practical use of electrification technologies. We will further develop these initiatives and promote global activities targeting carbon neutrality in 2050, aiming for 100% electrification in the early 2030s. As a global automaker, Nissan considers emissions across the entire value chain it shares with its suppliers, from procurement of raw materials to transportation and operation of vehicles. We understand how important it is to balance environmental initiatives with business activities, and strive to reduce emissions through new technology development, renewable energy use and other measures.

Efforts at Every Link in the Value Chain

The Nissan Green Program 2022 (NGP2022) aims to achieve carbon neutrality by reducing emissions from our corporate activities, products and services.

CO_2 Emissions in the Value Chain*



Reducing CO_2 emissions from corporate activities

Reducing CO_2 emissions from products and service

* Actual emissions in 2018.

PRODUCT INITIATIVES

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Policies and Philosophy for Product Initiatives

Reduction of Emissions from Products and Services

According to a 2014 report from the Intergovernmental Panel on Climate Change (IPCC), the transport sector was responsible for 14% of anthropogenic greenhouse gas emissions from all economic sectors in 2010. As a business in this sector with continued growth in both unit sales and amount of passenger activity, Nissan is aiming to decouple emissions from company growth.

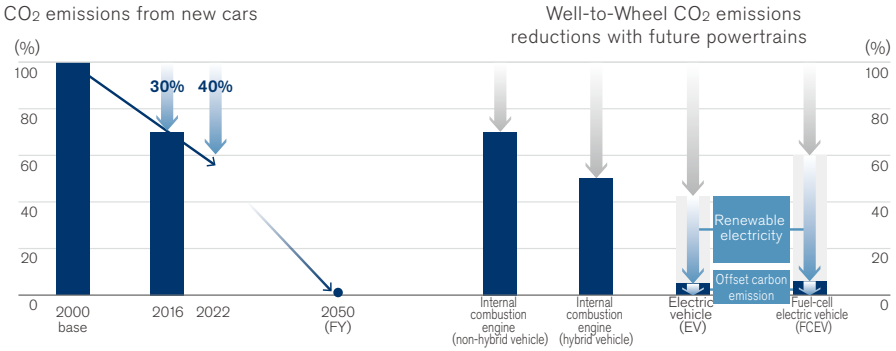
Our Long-Term Vision

Based on the IPCC Fourth Assessment Report, Nissan made its own estimation, and in 2006, set a scientifically-based long-term CO_2 emission reduction target for new vehicles by 2050.
Recognizing that this would require drastic reduction of "well-to-wheel" CO_2 emissions from new vehicles, we set about developing a new scenario for powertrain technologies. Additionally, under the Nissan Green Program 2022 (NGP2022), to remain on track with this target, we are aiming to reduce CO_2 emissions from new vehicles by 40% compared to fiscal 2000 by 2022 (in Japan, the U.S., Europe and China) throughout the value chain as a whole. As a global leader in technological advancements through the electrification of our products, we believe we can substantially contribute to the global efforts to keep the temperature increase "well below" 2° C. These initiatives also reinforce the sustainability of our own business.

Although NGP2022 has achieved some success, in recognition that efforts made so far are insufficient in terms of the IPCC "Special Report: Global Warming of 1.5° C" published in 2018, and in terms of national / local government and customer expectations for carbon neutrality in each market, Nissan is working toward higher goals by aiming for carbon neutrality in the vehicle life cycle and all business activities by 2050. As a milestone toward the realization of this goal, in January 2021 we announced that Nissan has set the goal of achieving carbon neutrality across the company's operations and the life cycle of its products by 2050. As part of this effort, by the early 2030s every all-new Nissan vehicle offering in key markets will be electrified.
Nissan will promote the evolution of new technologies and businesses, and under the umbrella of Nissan Intelligent Mobility,* we take a unified approach to bringing new technologies, functions, businesses and services to market.

* Click here for more information on Nissan Intelligent Mobility.
https://www.nissanusa.com/experience-nissan/intelligent-mobility.html

CO_2 Reduction Scenario

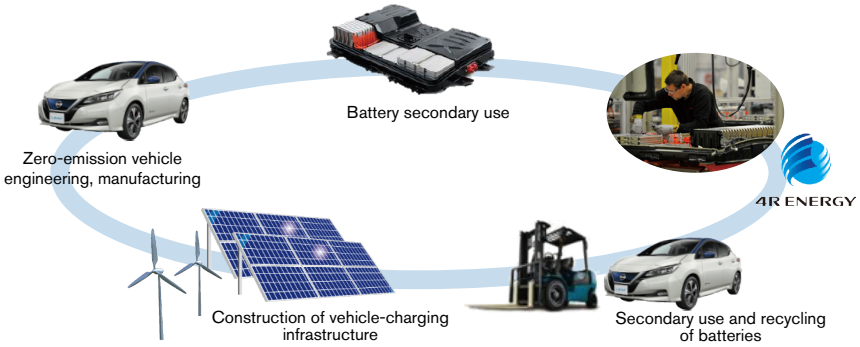


Pursuing a Zero-Emission Society

Electric vehicles (EVs) demonstrate that what is good for drivers and the planet is also good for business. Widespread use of zero-emission vehicles, which produce no CO_2 emissions during operation, is an effective way of moving toward a sustainable society. The auto industry must go beyond simply producing and selling these vehicles to help establish the infrastructure necessary to make them economical to use. No company can achieve this on its own. We consider the introduction and adoption of zero-emission vehicles one of the pillars of our corporate strategy. We are taking a comprehensive approach that involves boosting production and sales of zero-emission vehicles along with other activities coordinated with a variety of partners to popularize their use. We are committed to becoming a leader in the field of zero-emission vehicles. Not only are we increasing our development and production of zero-emission vehicles, we are forging numerous zero-emission partnerships with national and local governments, electric power companies and other industries to promote zero-emission mobility and explore how the necessary infrastructure can be built.

We participate in a comprehensive range of vehicle-related initiatives, including the development of lithium-ion batteries, secondary use and recycling of batteries, construction of vehicle-charging infrastructure, helping to make smart grids a reality and standardization of charging methods with other manufacturers.
Increasing uptake of zero-emission vehicles will bring lifestyle changes that lay the groundwork for a new mobility society. We provide more than just EVs themselveswe, also embrace the new values that they represent.

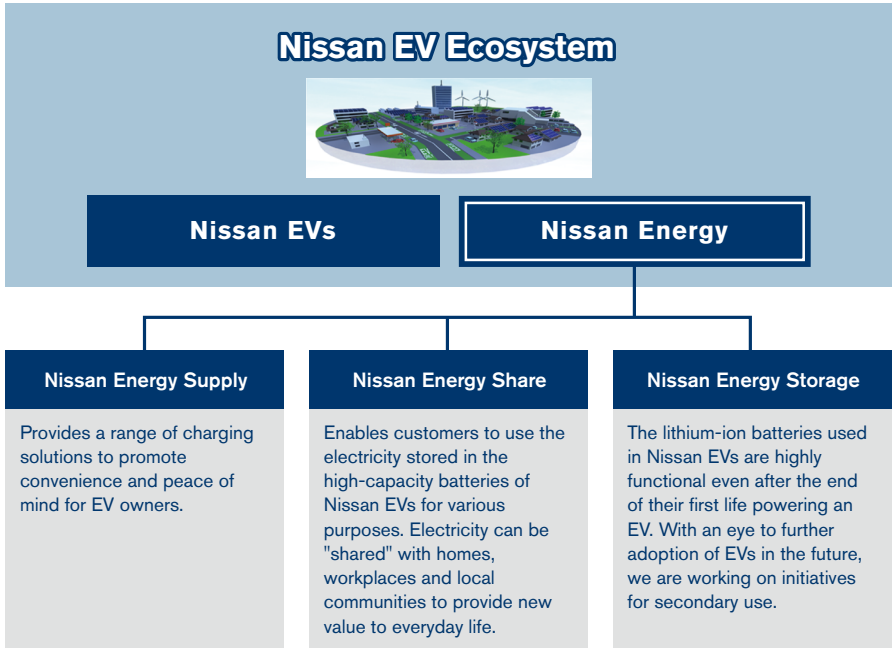
Building a Zero-Emission Society with EVs



Establishing Leadership in the EV Sector

Our commitment to sustainable mobility addresses concerns over climate change and supports the sustainable growth of the company.
Our 2010 launch of the first Nissan LEAF made us pioneers of mass-produced EVs. Since then, we have sold more than 690,000 EVs (including joint venture sales) around the world in total, and our transformation plan, NISSAN NEXT, calls for even more Nissan EVs, designed to appeal to customers with an ever-wider range of needs.
Furthermore, our history with EVs goes deeper than simply manufacturing and selling the vehicles themselves. We helped to establish an environment allowing EVs to become part of our customers' lifestyles, and developed the Nissan Energy solution for enjoying life with an EV to the fullest. Together, these initiatives created what we call the Nissan EV Ecosystem.
As we continue to strive for a zero-emission society, we will expand and develop the Nissan EV Ecosystem even further.

Nissan EV Ecosystem



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Managing actions through Products

Key Activities in NGP2022

The CO_2 emissions of a vehicle in use are influenced not only by engine performance and fuel type but also by traffic conditions and driving skills. Decarbonizing society will require new vehicle usage patterns. Nissan takes a threefold approach to product development aimed at mitigating real-world CO_2 emissions that addresses vehicle, driver and new mobility value.

1. Adopt cleaner energy to reduce vehicle CO_2 emissions

Extend electrification across all brands under the Nissan Intelligent Mobility strategy*1. Expand electric vehicle (EV) lineup and deploy e-POWER technology in core Nissan products.

2. Promote technology-based driver assistance and accelerate connected car development and commercialization

Develop e-Pedal, which regenerates energy when the driver eases up the accelerator pedal. and e-POWER electric powertrain fusing gasoline engines and electric motors, promote adoption of route guidance technologies based on real-time information from departure point to final destination.

3. Provide new mobility value

Provide new mobility services and expand the value of vehicle use. Pursue global expansion of V2X*2 energy management solutions (commercialization in the United States and Europe, and expansion of LEAF to Home in Japan) and engage with stakeholders to support V2X device commercialization.

*1 Click here for more information on Nissan Intelligent Mobility.
https://www.nissanusa.com/experience-nissan/intelligent-mobility.html

*2 V2X: Abbreviation for Vehicle to Everything, a term describing technology and systems for handling communication in vehicles. One example of V2X technology is Vehicle-to-Grid (V2G), which allows smart optimization of electricity supply according to demand.

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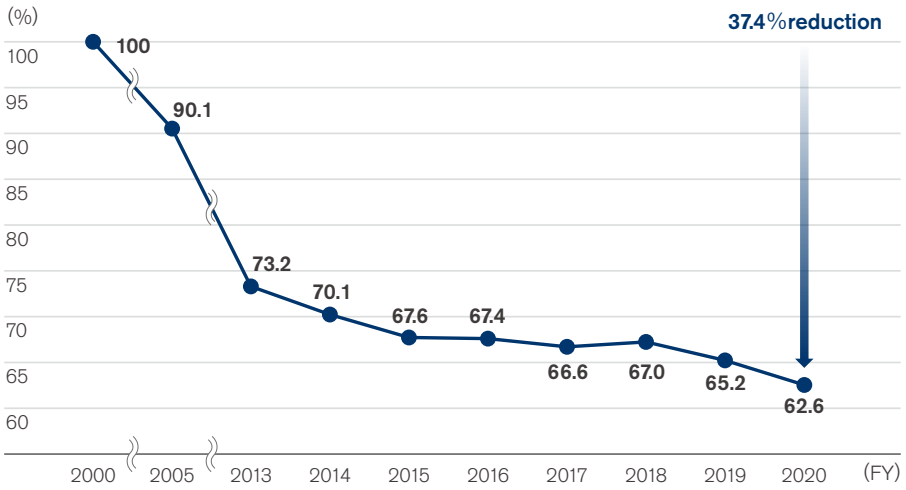
Product Initiatives: Achievements

Toward a 40% Reduction in New Vehicle CO_2 Emissions

Nissan strives to develop technologies that maximize the overall energy efficiency of conventional internal combustion engines and improve transmission performance. We are also working to boost the efficiency of electrification systems that capture and reuse kinetic energy from braking. Electrification is just one of our concrete *monozukuri* initiatives in technical innovation. We select the optimal fuel economy technologies for particular vehicles, taking into consideration factors like space within the vehicle, usage and economics, and bring them to market. Our goal is to reduce fuel consumption and CO_2 emissions without sacrificing the pleasure and ease of driving.
By fiscal 2022, we aim to achieve a 40% reduction in CO_2 emissions* compared to fiscal 2000 levels.

* From new vehicles in the Japanese, U.S., European and Chinese markets.

CO_2 Emissions from New Vehicles (Global)*



In fiscal 2020, CO_2 emissions in Nissan's main markets of Japan, the U.S., Europe, and China were 37.4% lower than fiscal 2000 levels, as measured by Corporate Average Fuel Economy (CAFE).
In particular, fuel efficiency has improved compared to fiscal 2019 due to the introduction of new models in the United States and Europe.

* Reduction in CO_2 emissions calculated by Nissan.

GRI302-5

Nissan's technologies of electrification realizing Carbon Neutrality

Accelerating the Advancement and Promotion of Electrification Technologies

Nissan has set the goal to achieve carbon neutrality across the company's operations and the life cycle* of its products by 2050. As part of this effort, by the early 2030s every all-new Nissan vehicle offering in key markets will be electrified as we pursue further innovations in electrification.
Nissan calculations show that the Nissan LEAF and other EVs can reduce CO_2 emissions over their entire lifecycle relative to gasoline-powered vehicles of the same class—from the extraction of raw materials, manufacturing, logistics and use, to end-of-life disposal. By contributing to the shift to renewable energy, EVs play an essential role beyond transportation in helping to achieve a low-carbon society.
Nissan is working on advances in electrification technologies that can reduce CO_2 emissions, as well as the development of systems that can be installed in various vehicle models.

* The vehicle life cycle includes raw material extraction, manufacturing, use, and the recycling or reuse of end-of-life vehicles.

EV Evolution from the Nissan LEAF to the Nissan ARIYA

Nissan LEAF is Zero Emissions Vehicle, emitting no CO_2 or other exhaust when driving. Since its launch in 2010, it has earned high praise for the smooth, strong acceleration and quiet operation of its electric motor powered by a lithium-ion battery. Cumulative global sales of the Nissan LEAF, which celebrated its 10th anniversary in 2020, has exceeded 524 thousand units (as of Mar. 2021). We believe this is not only due to values such as its zero emission driving, but the result of customers appreciating Nissan unique EV characteristics such as outstanding driving performance such as acceleration and steering stability.


Nissan LEAF


Nissan ARIYA

* For more information on Nissan LEAF lifecycle assessment.
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Nissan's first crossover EV announced in 2020, the Nissan ARIYA, is a further refinement of technologies cultivated in the Nissan LEAF, resulting in an advanced EV that combines powerful acceleration and smooth, quiet operation to make the most of the EVs unique qualities.
The newly developed powertrain boasts superior performance across all grades. The newly developed motor reduces energy consumption during

high-speed cruising, realizing a range of up to 610 km*1 (2WD 90 kWh battery-equipped model WLTC mode, Nissan measurement). Supporting quick charges up to 130 kW, the addition of a water-cooled temperature control system keeps the temperature of the battery more constant to enable charging sufficient for distances up to 375 km with a quick charge of 30 minutes*2.

*1 The distance ranges referenced in this report are Nissan measurements prior to certification and are subject to change until the starting sales.

*2 Using a CHAdeMO quick charger capable of 130 kW output or above. Charging times and amounts subject to change based on conditions such as battery state of health.

Lower cost powertrains are essential for broader EV adoption, but battery technical innovations in particular are a major issue. Specifically, Nissan will further promote the development of battery materials that reduce the amount of costly cobalt used. We are also conducting research and development on all-solid-state batteries, which have the potential to dramatically improve safety and reduce costs.
Depending on the spreading of EVs, the utilization of used battery will be the next issue and its market will also expand. 4R Energy Corp., which is funded by Nissan, established a plant in Namie, Fukushima Prefecture, and has been developing technologies for the reuse of used batteries. Nissan is already creating a business model in which used batteries collected from the market are sorted according to their condition and performance and supplied to various secondary users, passing on the value of reused batteries to customers. We will drive the increased spread of electric vehicles by expanding this model into a business and further reducing the hurdles to EV ownership for customers.

Enhancing Our 100% Electric-Motor-Powered e-POWER Drivetrain

The e-POWER system combines an electric motor, which drives the wheels, with a gasoline engine that charges the vehicle's battery. e-POWER is a technology that achieves both the smoothness and strength of 100% motor drive and top-level fuel efficiency. It also offers driving comfort similar to that of an EV, making e-POWER a new powertrain completely different from the hybrid systems commonly used in previous compact cars. As the gasoline engine does not directly drive the wheels, it can be run under optimal conditions (RPM, load) at all times to generate electricity. In city driving, where it is expected to see frequent use, the e-POWER achieves top-class fuel economy*. In e-POWER Drive mode, the driver can accelerate or decelerate simply by using the accelerator pedal, and the regenerative brake system also helps improve fuel economy by charging the battery.

* As of when the model first went on sale, as measured in WLTC mode: Note e-POWER, 29.5 km/L.

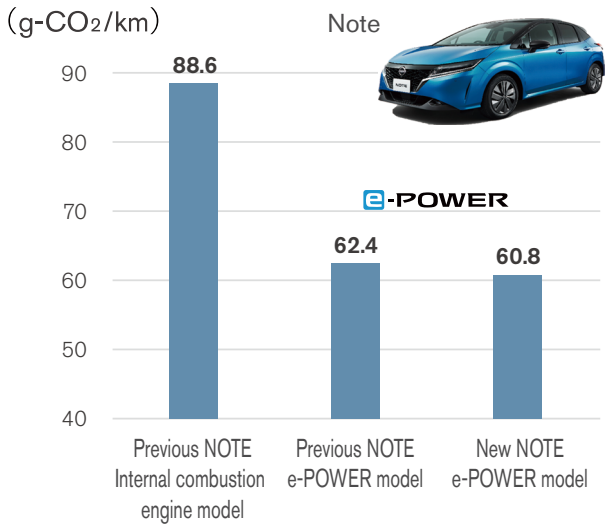
In November 2016, in Japan, we launched the first vehicle to feature our innovative new e-POWER drive system: the new compact Note e-POWER. In March 2018, the e-POWER system was further expanded to the Serena e-POWER, also for the Japanese market. In June 2020, it was expanded to the Nissan Kicks. The Note e-POWER, Serena e-POWER and Nissan Kicks have received high praise from customers, with the Nissan Kicks named one of the "6 Best Cars of the Year" at the 30th Annual (2021) RJC Car of the Year Awards sponsored by the Automotive Researchers' & Journalists' Conference of Japan (RJC). At the same time, the e-POWER system

equipped on the Nissan Kicks won the "RJC Technology of the Year." Having been launched in markets both in Japan and overseas, the e-POWER equipped Nissan Kicks has received favorable praise from local media and journalists around the world.

In December 2020, we launched the all-new Note, equipped with the second-generation e-POWER system. Additionally, global expansion of e-POWER equipped vehicles is progressing, starting with the addition of an e-POWER model on the Qashqai for Europe.
We are also working on the development of a system for the premium segment that can achieve overwhelming quietness by taking advantage of e-POWER functionality to minimize vibration from the power generating engine.

Going forward, e-POWER will continue to evolve as a technology that can be installed in a wide range of vehicle models while balancing environmental performance and driving performance at a high level. As with EVs, we will work to further reduce costs by developing battery technologies, dedicated engines for power generation and simplified systems customized for fixed-point operation. Additionally, we are developing technologies that achieve the world's highest level of 50% thermal efficiency with a next-generation engine dedicated to power generation for e-POWER and we promote technological developments enabling further reductions in CO_2 emissions (fuel efficiency improvement).

Replaced Serena with old and new Note fuel economy comparisons



* CO_2 emissions calculated from the fuel consumption rate in JC08 mode (measurement method of Japan's Ministry of Land, Infrastructure, Transport and Tourism).

The Growing Importance of Commercial Vehicle Electrification

It is estimated that commercial vehicle sales, which account for 25% of automobile sales, will increase to 50% in 2030, thus commercial vehicles electrification is important for carbon neutrality.
From June 2014, Nissan was first to sell the EV multipurpose commercial van e-NV200 in European countries and Japan. Compared to commercial vehicles based on internal combustion engines, the e-NV200 is able to reduce running costs and offer superior environmental responsiveness, including consideration for the impact of noise on the surroundings. Furthermore, 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 go in business, for outdoor events and leisure activities, such as for refrigerators when outdoors or camping, 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 is proposing a concept combining comfort and practicality through self-sufficient electricity with the

"e-NV200 Winter Camper concept" making it possible to charge the 220-volt battery using solar panels mounted on the roof.
Additionally, in 2020 the Tokyo Fire Department will begin using a zero-emission (EV) ambulance based on the NV400. Since ambulances must reduce the physical discomfort for both patients and paramedics, and because they need to be equipped with precision medical equipment, Nissan thinks quiet EVs with low vibration 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 the ambulance to be used as a mobile power source in the event of a power outage or disaster.
Going forward, Nissan will continue to expand its lineup of electric commercial vehicles, including the introduction of next-generation small vans utilizing the Alliance platform, and promote the manufacture of commercial vehicles with zero emissions.


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


Zero-emission (EV) ambulance based on the NV400

Progress in Plug-in Hybrid Vehicles

Plug-in hybrid electric vehicles (PHEVs) are hybrid cars that can run on electricity charged from an external source as well as fuel. With this combination of engines and electric motors, they provide motor operation equivalent to EVs. We are actively developing PHEVs, leveraging Alliance technologies with a view to launching them in the future.

Fuel-Cell Electric Vehicles

Powered by electricity generated from hydrogen and oxygen, fuel-cell electric vehicles (FCEVs) are another type of zero-emission vehicle that does not produce CO_2 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 Corp., Honda Motor Co. 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.
In June 2016, Nissan unveiled an 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 use 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 gasoline-powered 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.

Weight Reduction Technologies Supporting Carbon Neutrality

Along with improving the efficiency of batteries, engines and electric powertrains, reducing the weight of vehicle is important for reducing CO_2 emissions.
Nissan is working weight reduction in three ways: substituting materials, developing better forming and joining techniques and optimizing vehicle body structure. In terms of materials, we are rapidly expanding the use of ultra-high-tensile steel realizing high strength and formability, which is used for the body frame components on a wide range of vehicle models, from “kei” minicars 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. In 2020, we expanded use of 980 MPa Ultra High Tensile Strength Steel with High Formability to the Rogue, and applied the use of aluminum materials for hoods and doors to which the closed-loop recycling process*1 is applied. The recycling of waste aluminum is an environmentally friendly technology that can save more than 90% of energy required to make a comparable amount of aluminum from raw materials.
In 2020, the Note adopted the use of Ultra High Tensile Strength Steel with increased strength up to 1470MPa. We are promoting the use of these technologies in a wide range of vehicle models to reduce weight and contribute to the reduction of energy consumption by reducing the amount of materials used and engaging in recycling.
In addition to technological advances in terms of materials and production methods, the e-POWER system, which employs a newly designed motor and inverter in line with structural optimization, has been adopted for the new Note released in 2020. This realizes vehicle weight reductions of 15% for the motor and 30% for the inverter while increasing output by 6%. Nissan will continue to proactively develop lightweight technologies to lower CO_2 emissions and reduce dependence on new mined resources in order to achieve carbon neutrality.

*1 Closed loop-recycling: The reuse of waste and scrap generated during manufacturing and used products collected in-house as materials for parts of the same quality or reuse in similar products.

* For details about aluminum recycling activities, please see the following page:
>>> P021

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Initiatives for Partnerships with Society

Nissan Energy: Solutions that Enrich Life and Society with EVs

As part of our efforts to help build the EV ecosystem, we launched a group of solutions we call Nissan Energy. Nissan Energy has three main components, each of which is designed to support our customers' lifestyles with EVs in a different way.

Nissan Energy Supply

Nissan Energy Supply includes various electric charging solutions that bring ease and convenience to the lifestyles of our EV customers.
The majority of our EV customers find it convenient to charge their EVs at home. To help ensure that our vehicles can be safely charged, we guide customers to use suitable charging equipment and engage qualified installers to install electrical outlets dedicated to EVs.
The Nissan LEAF, which offers an ample driving range for daily use, utilizes a fast-growing charging network, providing drivers with confidence during longer distance drives and short outings.
Our dedicated EV app lets customers find and check the real-time status of charging stations. This not only makes charging easier and more convenient but also provides a seamless charging experience. As of the end of January 2021, approximately 35,600 quick chargers conforming to the CHAdeMO protocol have been installed worldwide.

Nissan Energy Share

The electricity stored in the Nissan EV's battery can do more than just power the 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.
Furthermore, Nissan Energy Share makes it possible for EVs to 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. EV's high-capacity batteries have high potential for usage as social infrastructure, by storing renewable energy like solar power for which generation is difficult to control.

Global Spread of Nissan Energy Share

Through collaborations with electric power companies, Nissan participates in demonstration projects around the world to verify how Nissan EV charge and discharge control (V2G, Vehicle to Grid), which is connected to power systems, help stabilize the supply and demand of electricity in society and the extent of economic and environmental benefits.
In the United Kingdom, in conjunction with the electric power company E.ON, we launched a project to install bi-directional chargers onsite at Nissan Technical Center Europe and verify compatibility between V2G and the efficient operation of company-owned vehicles (e4Future Project). We have also launched a project with the electric power company OVO Energy to install bi-directional charger in Nissan EV customer homes and verify the economic benefits of optimally controlling household power consumption (Sciurus Project).
Going forward, Nissan will continue to conduct V2G projects in the U.K., France, Belgium and Italy in collaboration with the electric power company EDF, a V2G project (REVS Project) aimed at frequency stabilization in the Australian Capital Territory implemented with the electric power company Actew AGL and the local government, and building energy management services (V2B, Vehicle to Building) in collaboration with US charging service provider Fermata Energy among other initiatives with our partners to increase and disseminate the value of EVs as batteries throughout the world. Based on results obtained from projects in each region, Nissan want to maximize the efficacy and economic benefits of EV charging and discharging operations and make Nissan Energy Share into a business as soon as possible.

Nissan Energy Storage

Nissan EV batteries offer high performance even after being 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 Corp. to establish 4R Energy Corp., which specializes in repurposing lithium-ion batteries. The intention is to fully utilize resources by promoting the four Rs of lithium-ion batteries-reuse, resell, refabricate and recycle with the aim of building an efficient cycle of battery use.

Reuse system realized using EV batteries

In conjunction with 4R Energy Corp., Nissan aims to create secondary usage method business models compatible with the capacity changes of individual Nissan EVs and batteries that will be fully utilized (cascade reuse) throughout the electric vehicle lifecycle.
In September 2019, Nissan and 4R Energy announced the establishment of a new solution for fixed storage batteries built with used batteries from the Nissan LEAF. To get started, we launched a proof-of-concept demonstration of “procuring electric power from renewable energy " at 7-Eleven stores in 10 locations across Kanagawa Prefecture. Under this scheme, 7-Eleven will introduce a package consisting of the Nissan LEAF electric vehicle and fixed storage batteries built with used batteries from the Nissan LEAF. The Nissan LEAF, which will be introduced as a commercial vehicle, will become a stationary storage battery after its use as a car has ended. The introduction of a package like this facilitates the creation of a circular system that takes into account the reuse of batteries. 4R Energy has developed a stationary storage battery with Vehicle-to-Everything (V2X) functionality, representing a further advance in the aforementioned stationary storage battery, and in line with CO_2 reductions during regular operations, Nissan is promoting the introduction of this package in a wide range of companies and municipalities as a BCP response for emergency situations.

Launched Testing to Expanding EV Usage in California

California’s active promotion of five million zero-emission vehicles by 2030 has helped make it the U.S. state with the largest volume of private EV sales. Even so, drivers still tend to use EVs for short-distance travel such as shopping or commuting. At the request of NEDO, and with the California government’s cooperation, Nissan Motor Co., Ltd. (NML) and Kanematsu Corp. started a project in November 2016 in partnership with U.S. charging infrastructure service provider EV go to install over 57 fast chargers in more than 26 new locations along one of California’s most important travel arteries. At the same time, the project created information service systems to guide EV users to the most appropriate fast charger. These initiatives are part of a pilot business to demonstrate the efficacy of expanding the driving range of EVs. The project was designed to expand the driving range of EVs to include intercity travel, and ran until September 2020, collecting and analyzing a range of EV data to establish models for further expansion of EV usage.

CORPORATE ACTIVITY INITIATIVES

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Policies and Philosophy for Corporate Activity Initiatives

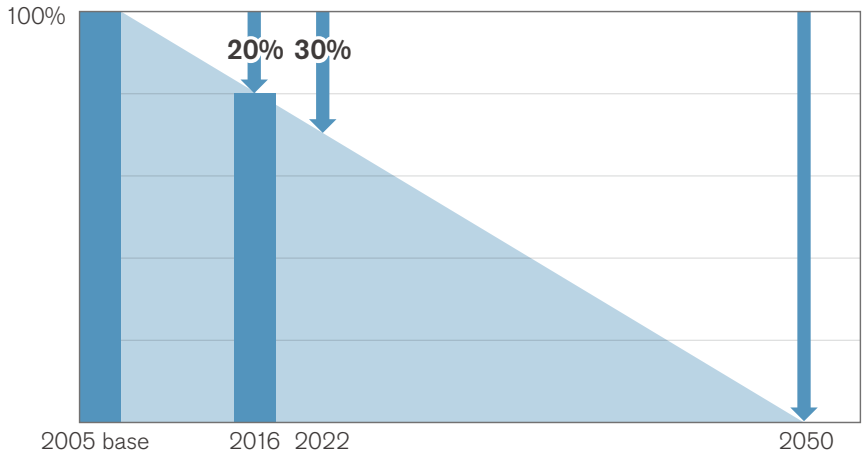
Reducing CO_2 Emissions from Corporate Activities

Nissan is taking steps to reduce its greenhouse gas emissions from corporate activities by promoting energy efficiency measures and also the use of renewable energy.
Based on calculations incorporating the findings of the Fourth Assessment Report from the Intergovernmental Panel on Climate Change (IPCC), Nissan established the goal of reducing its overall corporate CO_2 emissions by 2050. Also, as part of the Nissan Green Program 2022 (NGP2022), we set the midterm goal of a 30% reduction in overall corporate CO_2 emissions by 2022. Manufacturing is our largest emissions source, but we are also aiming to reduce greenhouse gas emissions from logistics, offices and dealerships, setting targets and taking action in each area.

Long-Term Vision and Road Map

IPCC 1.5°C special report published in 2018 stated the impacts of global warming of 1.5°C above pre-industrial levels and the context of strengthening the global response to the threat of climate change. Although NGP2022 has achieved some success of greenhouse gas reduction from corporate activities, in 2021, Nissan set targets for realizing carbon neutrality in the vehicle life cycle in 2050, and will accelerate greenhouse gas reduction from corporate activities to realize carbon neutral society

NGP2022 Long-Term Vision



* CO_2 emission per vehicle

GRI103-2

Management of Corporate Activity Initiatives

NGP2022 Objectives

Targets for each link in the value chain under the Nissan Green Program 2022 (NGP2022) aimed at achieving our long-term goal of carbon neutrality in the vehicle life cycle in 2050 are as follows:

Overall (manufacturing, logistics, offices, dealerships):

30% reduction in CO_2 emissions from global corporate activities by 2022 (vs. 2005/per vehicle sold)

Manufacturing

36% reduction in CO_2 emissions from global manufacturing sites by 2022 (vs. 2005/per vehicle manufactured)

Logistics

12% reduction in CO_2 emissions from logistics in Japan, North America, Europe and China by 2022 (vs. 2005/per vehicle manufactured)

Offices

12% reduction in CO_2 emissions from global offices by 2022 (vs. 2010/per floor area)

Dealerships

12% reduction in CO_2 emissions from dealerships in Japan by 2022 (vs. 2010/per floor area)

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Corporate Activity Initiatives: Achievements

33.7% Reduction in Emissions from Corporate Activities

In fiscal 2011, Nissan broadened the scope of its CO_2 reduction objectives to include logistics, offices and sales companies, as well as production sites. We expanded our emission-related initiatives, introducing high-efficiency equipment, energy-saving measures and the use of renewable energy, and also strengthened our management of these initiatives. Our objective is to reduce CO_2 emissions associated with corporate activities by 30% globally by fiscal 2022 compared to fiscal 2005 levels, as measured by the index of CO_2 emissions per vehicle (total emissions generated from Nissan global corporate activities divided by total Nissan vehicles sales volume). In fiscal 2020, we achieved a 33.7% reduction from the fiscal 2005 t-CO_2/vehicle level.

* Global CO_2 emissions per vehicle: Calculated by dividing the total volume of CO_2 emissions produced through Nissan's corporate activities globally by the number of Nissan vehicles sold globally.

Next-Generation Vehicle Manufacturing Concept: Nissan Intelligent Factory

In line with the acceleration of vehicle electrification, intelligence and the Nissan Intelligent Mobility concept promoted by Nissan, vehicle functions and construction are becoming increasingly complex. As further technological innovations will be essential in the production process, we announced the Nissan Intelligent Factory* vehicle manufacturing concept.

These innovations include Nissan's development of a new water-based paint that successfully controls the viscosity of body paint, which had been difficult to control at low temperatures, realizing a low-temperature body paint. This enables the simultaneous painting of the body and bumpers, reducing CO_2 emissions by 25%. In the past, residual airborne paint was mixed with water and disposed of as waste. However, the adoption of dry booths do not use any water at all and enable to collect 100% of the residual airborne paint, which is reused as an alternative to auxiliary agents to remove impurities in the iron casting process.

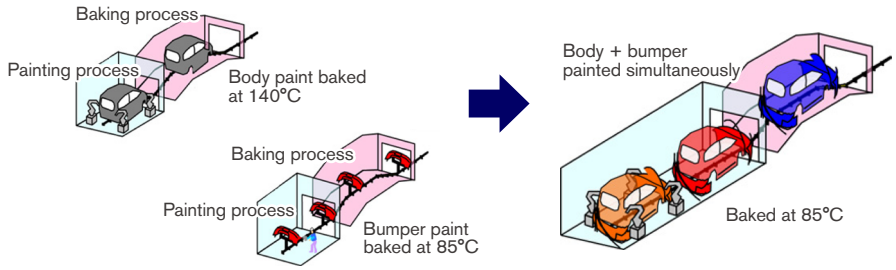
* Click here for more information on Nissan Intelligent Factory
https://global.nissannews.com/en/releases/release-ca298f94d2418782118342f5fd0448b6-191128-02-e

Saving Energy in Global Production

Most CO_2 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 CO_2 emissions of any automaker.
In the realm of automotive production technology, we are introducing highly efficient equipment, improving manufacturing techniques and using energy-saving lighting in our assembly plants. Other key approaches are the three-wet paint process and low-temperature baking technology used for vehicle painting, which enables the body and bumpers to be painted at the same time. Approximately 30% of CO_2 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_2 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 CO_2 emissions from the painting process by 25% or more*1. Nissan has implemented this technology in the new production line at the Tochigi Plant (launched in 2021) and will gradually expand its roll out as painting facilities become more sophisticated in the future. Also, systems for recycling air expelled from booths for reuse 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 United Kingdom (operating since September 2018) and has also been implemented on the new line at the Tochigi Plant.

*1 Source: Nissan

Three-Wet Paint Process (Combined Primer and Topcoat Application)

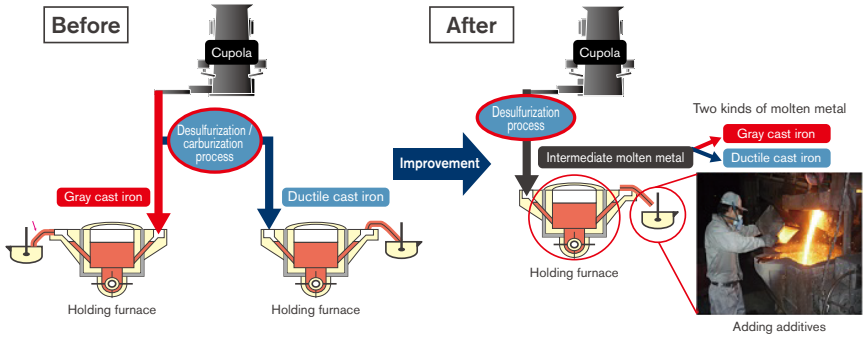


Simultaneous Painting of Body and Bumpers
CO_2 emissions have been reduced by simultaneously painting the body and bumpers using a new technology and consolidating them into one process (right) and drying at a low temperature (85° C) instead of the conventional two-step process (left).

At the same time, in the powertrain production technology area, Nissan is working to reduce holding furnace energy usage in cast iron melting processes conducted by the Casting Division. Traditionally, in the melting process, two holding furnaces were used to store two types of cast iron melts with adjusted carbon and sulfur component contents. Now, intermediate molten metal with a low carbon and sulfur content is stored in one holding furnace. When transporting from the holding furnace to another process, the ingredients are adjusted by adding additive materials, creating two types of molten metal and making it possible to eliminate one holding furnace. As a result, power consumption was reduced by approximately 3,600 MWh per year (CO_2 conversion: Approximately 1,700 tons per year; oil conversion amount: Approximately 900 kiloliters per year). This corresponds to about 11% of the power consumed in the melting processes conducted by the cast iron factory located onsite at the Tochigi Plant. In light of this achievement, Nissan won the Agency for Natural Resources and Energy

Award in the Small Group Activities category at the Energy Conservation Grand Prize Awards for fiscal 2019, sponsored by The Energy Conservation Center, Japan (ECCJ).

Cast iron melting process



To reach our defined objectives for CO_2 emissions and energy use, we solicit facility proposals from each global site, preferentially allocating investment based on the potential CO_2 reduction compared to project costs. Making the value of carbon a key factor in internal evaluations lets us invest more efficiently and be more competitive. In Japan, we converted outdated facilities into cutting-edge high-efficiency facilities with investments to improve energy efficiency, including energy-saving roof insulation upgrades. Our plants use finely controlled lighting and air conditioning for low-energy use and low-energy-loss operations. We promote CO_2 emission reduction activities and introduced cutting-edge energy-conservation technology from Japan in our plants worldwide. Around the globe, our plants learn and share best practices with each other, while Nissan Energy Saving Collaboration (NESCO)*2 diagnoses energy loss at plants in regions where it is active and proposes new energy-saving countermeasures. These proposals amount to a potential reduction in CO_2 emissions of some 45,300 tons*3 in fiscal 2020, according to our calculations.

When sourcing energy, we consider the balance of CO_2 emissions for the entire company alongside renewable energy usage rate and cost, choosing suppliers best suited for achieving each goal. Through such activities, CO_2 emissions per vehicle produced in fiscal 2020 were brought down to 0.52 tons, a reduction of 29.7% from the fiscal 2005 level.

*2 Established in Japan in 2003, then in Europe, Mexico and China in 2013
*3 Source Nissan

Energy Input

(FY)

	Unit	2016	2017	2018	2019*3	2020
Total	MWh	10,189,082	9,532,840	9,252,737	8,313,893	7,655,514
By region						
Japan	MWh	4,497,562	4,084,912	3,700,532	3,438,939	3,015,419
North America	MWh	2,643,303	2,452,299	2,570,438	2,180,450	1,909,902
Europe	MWh	1,093,103	1,126,186	1,048,201	913,521	888,089
Other	MWh	1,955,115	1,869,443	1,933,566	1,780,983	1,842,105
By energy source						
Primary						
Natural gas	MWh	3,537,674	3,701,640	3,579,998	3,079,723	3,089,803
LPG	MWh	249,426	179,945	191,405	175,559	144,478
Coke	MWh	217,431	218,618	200,527	154,961	100,144
Heating oil	MWh	209,232	147,522	113,200	90,078	69,618
Gasoline	MWh	303,040	299,000	259,045	243,166	184,021
Diesel	MWh	57,488	48,259	53,074	23,246	25,315
Heavy oil	MWh	43,853	27,652	15,995	16,303	22,816

(FY)

	Unit	2016	2017	2018	2019*3	2020
External						
Electricity (purchased)	MWh	5,247,663	4,755,897	4,711,467	4,384,282	3,851,011
Renewable energy*1	MWh	157,226	133,212	135,574	123,225	181,815
Chilled water	MWh	12,919	6,661	7,487	5,086	3,530
Heated water	MWh	4,690	5,000	5,000	2,706	2,635
Steam	MWh	136,593	128,038	102,324	125,662	96,960
Internal						
Electricity (in-house generation)	MWh	11,847	14,609	13,214	43,668	65,183
Renewable energy*2	MWh	11,847	14,609	13,214	43,668	65,183
Total renewable energy	MWh	169,073	147,821	148,788	166,893	246,998

*1 Volume of renewable energy in electricity purchased by Nissan.
*2 Volume of renewable energy generated by Nissan at its facilities and consumed for its own purposes.
*3 Manufacturing base and office closures due to COVID-19 prevented the finalizing of FY2019 data in Sustainability Report 2020. FY2019 data has been updated for Sustainability Report 2021.

Energy Inputs and Energy Consumption

The total energy consumption of our global corporate activities during fiscal 2020 was 7.656million MWh, a 9% decrease from fiscal 2019. This reduction was primarily due to the promotion of energy-saving activities at facilities and a decline in total production volume. Production sites globally accounted for 6.513million MWh★ total energy consumption.

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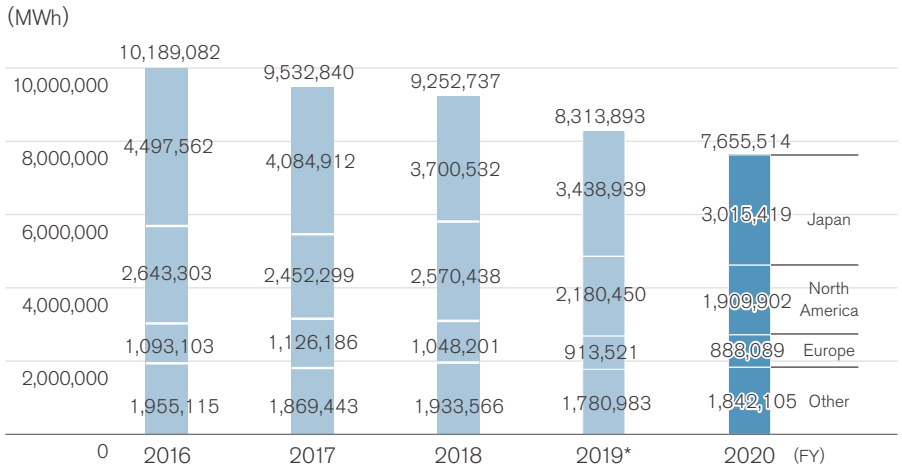

* Manufacturing base and office closures due to COVID-19 prevented the finalizing of FY2019 data in Sustainability Report 2020. FY2019 data has been updated for Sustainability Report 2021.

Carbon Footprint of Corporate Activities

(FY)

	Unit	2016	2017	2018	2019*	2020
Scope 1	t-CO_2	963,661	912,476	889,444	774,164	737,683
Scope 2	t-CO_2	2,614,028	2,394,109	2,339,883	2,105,700	1,804,759
Scope 1+2	t-CO_2	3,577,689	3,306,584	3,229,327	2,879,864	2,542,442
Japan	t-CO_2	1,579,089	1,333,335	1,208,303	1,147,686	923,892
North America	t-CO_2	823,340	683,332	738,234	648,754	647,465
Europe	t-CO_2	176,285	228,998	221,692	163,553	156,441
Other	t-CO_2	998,976	1,060,920	1,061,098	919,871	814,644
Scope 3	t-CO_2	150,462,000	213,715,000	203,106,900	173,138,601	135,068,055

In fiscal 2020, the total of Scope 1 and 2 emissions was 2.542 million tons. Total CO_2 emissions from manufacturing processes were 1.951million tons★ (Scope 1 emissions: 0.599million tons★ Scope 2 emissions: 1.353million tons★).

★ This figure is subject to assurance by KPMG AZSA Sustainability Co., Ltd. For details, please see here.
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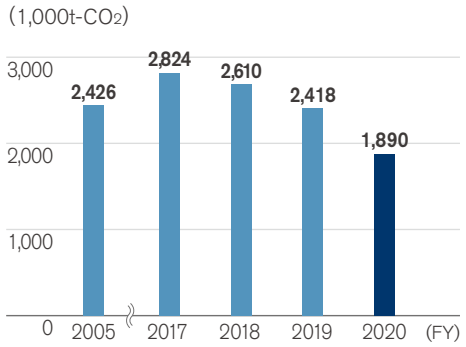
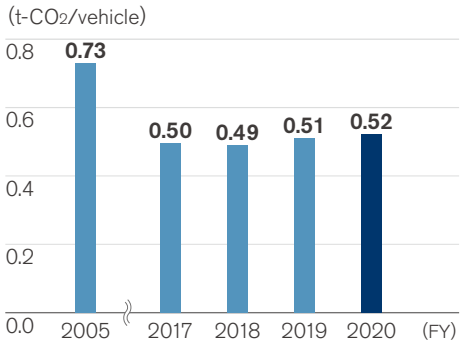
* Manufacturing base and office closures due to COVID-19 prevented the finalizing of FY2019 data in Sustainability Report 2020. FY2019 data has been updated for Sustainability Report 2021.

Carbon Footprint of Manufacturing Activities



Manufacturing CO_2 per Vehicle Produced



In fiscal 2020 , our manufacturing CO_2 emissions per vehicle produced were 0.52 tons, 29.7% less than fiscal 2005.

Promoting Renewable Energy

Nissan takes three approaches toward promoting the adoption and integration of renewable energy in line with the characteristics of each region: (1) generating our own power in company facilities; (2) sourcing energy with a higher proportion of renewables; and (3) leasing land, facilities and other assets to power companies.

As an example of the first approach, our Sunderland Plant in the United Kingdom introduced 10 wind turbines supplying up to 6.6 MW of power. In 2016, the plant installed 4.75 MW solar power, and in 2021, additional installation of 20MW capacity has planned. At our Iwaki Plant, the guest hall for plant visitors is powered by solar energy. By storing surplus electricity in secondhand Nissan LEAF batteries, the plant both stabilizes the energy supply and uses resources more effectively. At the Huadu Plant of Dongfeng Nissan Passenger Vehicle (DFL-PV) in China, solar panels with a total capacity of 30 MW have been in operation since 2017, providing roughly 8% of the electricity used at the plant.

Regarding the second approach, our first Aguascalientes Plant in Mexico actively uses energy generated from biomass gas and wind power and has achieved a renewable energy usage rate of 50% since 2013. Since June 2020, we have further expanded the renewable energy usage rate to reach 70%. Solar power generators were also installed on a parking structure roof at the India plant in October 2020 and on a warehouse roof at the Egypt plant in March 2021, both of which have commenced operation.

Through these efforts, we have enhanced the renewable energy usage rate at our production plants as part of reducing CO_2 emissions. In fiscal 2020, our renewable energy usage rate reached 10.5%.

* In addition, we installed a solar farm (with an output of approximately 200 kW) at a plant in Spain.

More Efficient Logistics and Modal Shifts

In 2000, Nissan began sending chartered trucks for pickup and delivery of parts. This approach—adapted widely across the company, including at overseas manufacturing sites—has increased global operational efficiency. We work together with suppliers to optimize the frequency of deliveries and transport routes and improve packaging specifications for better loading ratios so fewer trucks are required. We are also pursuing a modal shift from trucks to rail for transport.

Through a 2014 expansion of this approach to include cooperative transport of production parts with other original equipment manufacturers (OEMs), in addition to complete vehicles and service parts, we are seeking further efficiency in this area. We work from the design stage of new vehicles to reduce transportation distances by sourcing necessary production components for plants through localization as much as possible.

Our engineers devise efficient packaging for the huge number of parts of different shapes and materials that go into automobiles. Through simultaneous-engineering logistics, we work from the design stage to create parts and develop new vehicles that enhance transportation efficiency, as well as reduce parts shipments per vehicle.

In container transport, we have taken a range of measures to improve container filling rates for parts transport, from 40-foot “high cube” containers to software simulations that reduce wasted container space.

We constantly review transport methods and are currently undertaking a modal shift to rail and maritime transport. Some 80% of completed vehicles in Japan are now transported by sea. Parts shipments to NMK from the Kanto area in and around Tokyo are nearly all conducted by rail and ship. The Japanese Ministry of Land, Infrastructure, Transport and Tourism (MLIT) has recognized Nissan as an outstanding enterprise for this modal shift to sea transport.

At Nissan sites outside Japan, transport methods are selected to best match the local geographical conditions. Transport of completed vehicles is increasingly shifting from truck to rail or ship, depending on the destination. In China, we are increasing the proportion of completed vehicles that are transported domestically by ship or rail.

Since 2010, we have also been promoting the use of energy-efficient vessels for sea shipments of our vehicles. Today, our fleet has grown to include seven energy-efficient car carriers*1.

As we expand our global logistics operations, we will continue to increase efficiency and effect a modal shift in transportation, targeting a 12% reduction in CO_2 emissions by fiscal 2022 compared to fiscal 2005 levels, as measured by the index of CO_2 emissions per vehicle*2. In fiscal 2020, CO_2 emissions per global vehicle were 0.31 tons - a reduction of 11.5% reduction of 11.5%.

*1 More information can be accessed on Nissan’s energy-efficient car carriers’ page.
*2 Total emissions generated from transportation to Nissan manufacturing sites and retail outlets in Japan, North America, Europe and China divided by the total number of vehicles transported.
* Data related to climate change (initiatives through corporate activities) is also available here.
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CO_2 Emissions from Logistics

(FY)

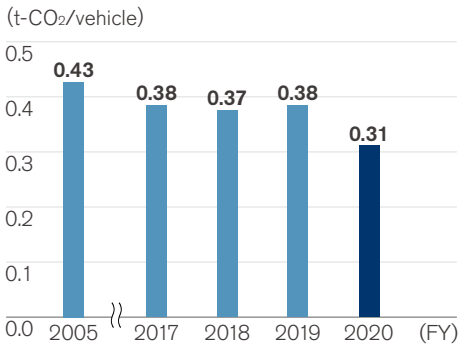
	Unit	2016	2017	2018	2019	2020
Total	t-CO_2	1,926,477	1,567,248	1,482,982	1,144,338	891,817
Inbound*	t-CO_2	809,088	739,610	762,314	582,957	392,014
Outbound*	t-CO_2	1,117,389	827,638	720,667	561,381	499,803

Sea	%	17.8	20.0	19.9	21.1	20.1
Road	%	62.1	64.6	60.3	64.1	65.9
Rail	%	5.6	7.0	6.7	5.9	6.7
Air	%	14.5	8.4	13.1	8.9	7.4

* "Inbound" includes parts procurement from suppliers and transportation of knockdown parts; "Outbound" includes transportation of complete vehicles and service parts.
* Value in 2016 were corrected after recalculation.

In fiscal 2020, CO2 emissions from logistics were 891,817 tons, down approximately 22% from the previous fiscal year. A substantial contribution to the reduction of overall CO2 emissions was made by production volume decrease and reduction of air shipping.

CO_2 Emissions per Vehicle Transported



In fiscal 2020, CO_2 emissions per vehicle transported were 0.31 tons.

Office Initiatives

We promote 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.
NESCO teams have also expanded the scope of their activities beyond production plants to contribute to reducing emissions in the Nissan Technical Center in Atsugi.
Our efforts go beyond just CO_2 management. We are pursuing other environmentally-friendly policies, such as improving our video and telephone conference facilities and using software to bring participants in multiple locations together when they need to share documents. This reduces the number of business trips required worldwide, improves workplace efficiency and reduces costs.

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_2 emissions; waste and emissions from construction methods; and use of hazardous materials and other quality control issues. Furthermore, one performance index for Nissan in Japan is MLIT's Comprehensive Assessment System for Built Environment Efficiency (CASBEE)*.
Among our current business facilities, our Global Headquarters in the city of Yokohama, Kanagawa Prefecture, has earned CASBEE's highest "S" ranking, making it the second Nissan structure to do so following the Nissan Advanced Technology Center (NATC) in Atsugi, which is located in the same prefecture.
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 building's use of natural energy sources to reduce its energy usage and its CO_2 emissions were evaluated highly, as were its methods of water recycling and its significant reduction in waste produced.

* Comprehensive Assessment System for Built Environment Efficiency

Dealership Initiatives

Nissan promotes CO_2 management at dealerships with the aim of reducing total emissions per floor area by 1% each year. Our retail outlets also work continually to increase energy efficiency. Many have adopted high-efficiency air conditioning, insulation films, ceiling 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 addition, to source electricity with low environmental load, we have broadened supply from PPS systems, including our own, to provide 120,407 MWh of power (equivalent to an annual reduction of 1,011 tons in CO_2 emissions) to 901 retail outlets in the Hokkaido, Kanto, Chubu, Tohoku, Kansai, Chugoku and Kyushu regions. Since April 2000, we have run a unique environmental facility certification system based on ISO 14001 for dealerships called “Nissan Green Shop.” Our environmental policy requires all dealerships in Japan to meet certain standards and undergo annual audits performed by our teams. The dedicated evaluation sheet has a total of 84 key performance indicators (KPIs) and is regularly revised to reflect the requirements of national legislation, local communities and the Nissan Green Program (NGP).

Solar panels installed on the roof of a Kanagawa Nissan dealership. Power from the panels is supplied to dealerships through the Nissan PPS system.

AIR QUALITY

GRI103-1 GRI103-2

Air Quality Policies and Philosophy

Nissan approaches air quality by focusing on two points: greener exhaust emissions and providing a pleasant in-cabin environment to customers. In this way, we will strive to consider ecosystems while pursuing mobility that provides more comfort and security to customers. According to the State of Global Air 2018 report issued by the U.S.-based Health Effects Institute (HEI), 95% of the world's population currently live in regions where particulate matter smaller than 2.5 μm (PM2.5) exceeds the 10 μg/m3 basic level specified by World Health Organization (WHO) Air Quality Guidelines. Furthermore, the Organization for Economic Cooperation and Development (OECD) predicts that the global population will exceed 9 billion by 2050, with around 70% of people concentrated in cities, making air pollution in urban areas an even more pressing issue.
For an automaker, air pollution stands alongside climate change and congestion as an issue for cities in particular that must be remedied. Nissan is advancing its efforts to improve air quality with two approaches:

1. Promoting Zero-Emission Vehicles

Electric vehicles (EVs), such as the Nissan LEAF, which has cumulative global sales of 524 thousand units (as of Mar. 2021), are an effective tool 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.

2. 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.
We will continue our efforts to ensure cleaner exhaust emissions from internal combustion engines, which remain the most commonly used in the automotive market.

- Sentra CA (released in the United States 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)*1 certification.
- Bluebird Sylphy (released in Japan in August 2000): The first passenger vehicle made in Japan to achieve Ultra-Low Emission Vehicle (U-LEV)*2 certification.

*1 PZEV: Partial Zero Emissions Vehicle certification set by the California Air Resources Board
*2 U-LEV: Vehicle that produces 75% less nitrogen oxide (NOx) and nonmethane hydrocarbon (NMHC) than the 2000 emission standards level in Japan.

Improving In-Cabin Air Quality

With autonomous drive technologies currently in development and projected to be in practical use from 2020, drivers are expected to spend more time in their vehicles, making it even more important for that space to be pleasant and safe. The Nissan Green Program 2022 (NGP2022) is calling for research and development not just to make exhaust emissions cleaner but also to improve in-cabin air quality as well.

As part of our continued efforts concerning volatile organic compounds (VOCs)* such as formaldehyde and toluene, Nissan is further reviewing and reducing materials for seats, door trim, floor carpet and other parts as well as adhesives. We voluntarily set more stringent standards than those of the Japanese government and automotive industry body regulations, and have applied them to all new vehicles introduced to the market from July 2007 onward.

* VOCs: Organic chemicals that readily evaporate and become gaseous at normal temperature and pressure conditions.

Reducing VOC Emissions from Production

Nitrogen oxide (NOx), sulfur oxide (SOx) and VOCs are recognized as common forms of emissions created by vehicle manufacturing facilities. We are taking firm measures to ensure that management standards and systems for atmospheric emissions are thoroughly followed; and working to reduce both VOC exhaust volumes and the use of VOC-emitting substances to levels lower than required by national regulations.

We are actively working to increase the recovery of cleaning solvents and other chemicals in order to reduce the amounts of these substances emitted from our plants ahead of the implementation of new regulations in each country where we operate. Also, we are systematically introducing water-based paint lines that emit fewer VOCs and improving thinner-solvent recycling rates to reduce our use of VOC-emitting substances.

As one example, the water-based paint line in the Nissan Motor Kyushu Plant has VOC emissions of less than 20 grams per square meter of painted surface, which is top-class in the industry. These lines have also been adopted at two Aguascalientes plants in Mexico, the Resende Plant in Brazil, the Smyrna Plant in the United States, the Huadu Plant in China and other plants.

Additionally, we have adopted low-NOx burners as the heat source for the ovens and boiler equipment used in the car painting process and promote the switch from heavy oil and kerosene to fuels with low SOx emissions to reduce the emission and concentration of NOx and SOx.

GRI103-3 GRI305-5 GRI305-7

Air Quality: Achievements

Compliance with Emissions Regulations (Passenger Cars Only)

Nissan not only works to develop and promote zero emission electric vehicles (EVs) but continues to promote cleaner exhaust emissions from all of our engines. For example, the Qashqai released in Europe in October 2018 has a new fuel-efficient 1.3-liter turbo gasoline engine fitted with a particulate filter that meets the Euro 6d-Temp* emissions standard. In Japan, our e-POWER electrification technology has resulted in a significant lowering of fuel consumption while achieving 75% reductions in exhaust emissions from 2005 standards. As part of these efforts, our compliance with emissions regulations goes far beyond current legal requirements to meet more stringent specifications. Due to differences in regulations, there is no direct way to compare by region or country, but the table below shows the percentage of Nissan vehicles in each location produced to the strictest local standards.

* Euro 6d-Temp: All Euro 6 standards and the initial Real-Driving Emissions (RDE) limit for new car models.

Compliance with Emissions Regulations (By Region)*1

(FY)

		unit	2020
Japan	75% lower than 2005 standard and 50% lower than 2018 standard	%	87.8
Europe	Euro 6d-temp/d	%	100*2
U.S.	U-LEV/SULEV/ZEV	%	100
China	National 6	%	100

*1 Passenger cars and light commercial vehicles only.

*2 Excluding registration and sales deregulation measures for discontinued models.

Plant Emission Management

We thoroughly implement systems and control standards at our production plants to reduce the amount of air pollutants emitted during operation. Our air pollution control targets are more stringent than those mandated by the countries in which we operate.
In Japan, we have adopted strict measures for emissions of NOx and SOx pollutants from our factories, reducing the amount of these emissions to one quarter of the levels emitted in the 1970s. 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.

Lower VOC Emissions

Volatile Organic Compounds (VOCs), which readily evaporate to become gaseous in the atmosphere, account for approximately 90% of the chemicals released as the result of our vehicle production processes. Lowering VOC emissions is a challenge that we are working to address. We strive to increase our recovery of cleaning solvents and other chemicals in order to limit the amounts of these substances emitted from our plants ahead of 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 Nissan Motor Kyushu as well as at two plants in Aguascalientes in Mexico, the Resende Plant in Brazil, the Smyrna Plant in the United States, the Huadu Plant in China and the Sunderland Plant in the United Kingdom. We achieved a reduction of 36.8% in fiscal 2020 in VOC emissions per painted surface area compared with fiscal 2010 levels.

* For more information on Air Quality.
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RESOURCE DEPENDENCY

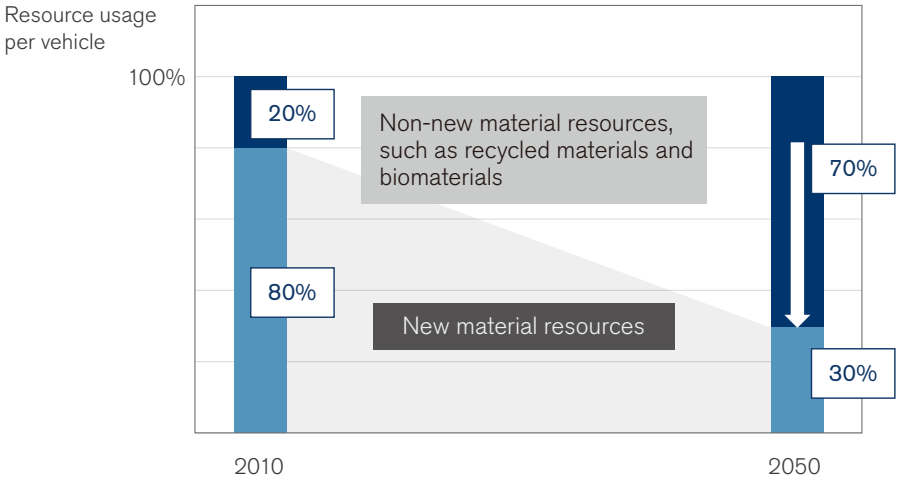
GRI103-1 GRI103-2

Resource Dependency Policies and Philosophy

With the world's population forecast to exceed 9 billion by 2050, demand for natural resources like minerals and fossil fuels is set to rise. This makes it even more important to maximize the value obtained from these resources. The Sustainable Development Goals (SDGs) adopted by the United Nations in 2015 also emphasize the importance of managing resources sustainably and using them efficiently.

Automobiles are made of many components, incorporating a diverse range of resources. The combination of these resources creates new value. Nissan has increased its resource diversification, using more renewable resources and recycled materials. While caring for ecosystems, Nissan became more competitive as we targeted green growth. In working toward the long-term vision of using materials that do not rely on newly mined resources for 70% of the materials used in each vehicle in 2050, we will strive to minimize the use of natural resources and maintain new resource usage at 2010 levels.

Long-Term Vision for Reducing Resource Dependency



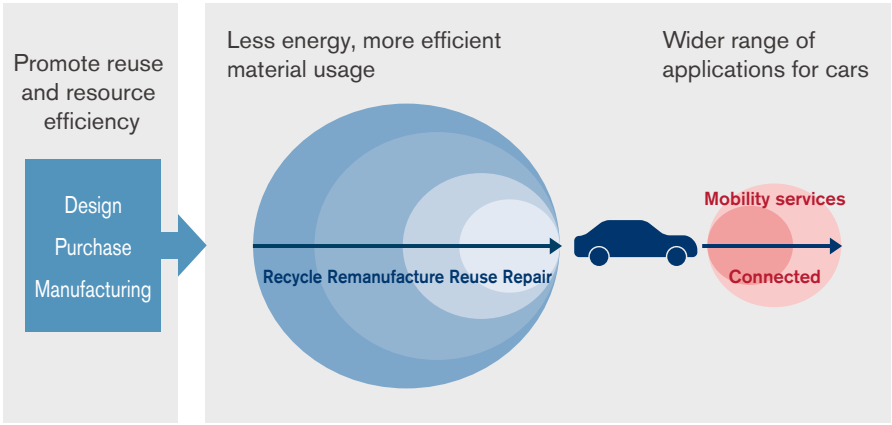
GRI103-2

Resource Dependency Management

In order to use the Earth's precious and limited resources efficiently, the environmental impact when extracting these resources must be kept to a minimum. At the same time, waste generated during vehicle production and scrap from end-of-life parts must be recycled as extensively as possible without compromising quality, producing materials that can be used in the same types of products. Based on this approach, known as closed-loop recycling, we have focused our efforts on recycling steel, aluminum and resin —three kinds of material which account for a large proportion of vehicle content yet also have a major impact on the environment.

As part of the Nissan Green Program 2022 (NGP2022), Nissan is developing systems for using resources efficiently and sustainably across their entire lifecycle, and has adopted the concept of the "Circular Economy" to maximize the value it provides to customers and society. In an attempt to use resources efficiently with less energy, we will promote the use of recycled materials and recycling end-of-life vehicles, and strive to incorporate reusable resources in our activities at the design, purchasing and manufacturing stages. We are using fewer resources overall, both through appropriate use of chemical substances and making vehicles more lightweight. We will continue to promote the efficient use of resources with further reduced energy requirements and the expanded use of repaired and remanufactured parts as well as the secondary use of electric vehicle (EV) batteries in the vehicle use stage, and foster the development of biomaterials and dieless forming technology for practical use. We will also increase the value cars manufactured in this way provide to society and ensure that cars can be put to best use by promoting electrification and autonomous drive in our products, pursuing connectivity and providing mobility services such as ride sharing.

Nissan's Circular Economy Concept



GRI103-3 GRI301-2 GRI301-3 GRI305-7

Resource Dependency: Achievements

Reducing Dependence on Newly Extracted Resources to 70% by 2022

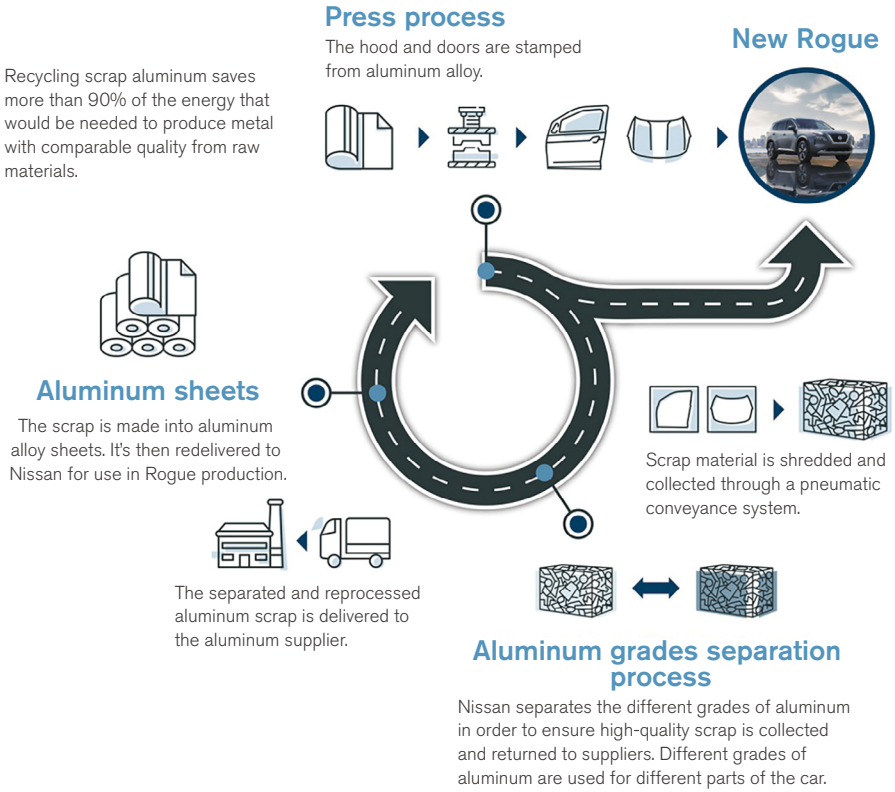
Demand for mineral and fossil resources is rising rapidly with the growth of emerging economies. According to forecasts, if growth in extraction volumes continues, all currently known mineral resources will have been extracted by 2050. There are some existing mining sites and others under exploration that are located in areas with vulnerable local ecosystems, generating concern about the environmental effects of topsoil excavation, deforestation and wastewater.

To address these issues, Nissan has implemented a policy of minimizing the use of newly extracted natural resources and maximizing the use of recyclable materials from the early development stage while also making structural improvements to facilitate recycling. We are also reducing the use of resources in the manufacturing process and making more efficient use of resources.

In the Nissan Green Program 2022 (NGP2022), our goal is to cut the use of newly extracted resources to 70% per vehicle in fiscal 2022. We intend to increase the use of recycled materials in our vehicles on a global scale, including Japan, Europe and North America, in cooperation with our suppliers.

Initiatives to Expand Use of Recycled Materials (Ferrous and Nonferrous Metals)

In fiscal 2020, ferrous metals accounted for 61% of the materials used in our automobiles by weight. Nonferrous metals made up another 13% and resins 15%, with miscellaneous materials making up the final 12%. To further reduce our use of natural resources, we are advancing initiatives to expand the use of recycled materials in each of these categories.



We are taking steps to reduce the steel and aluminum scrap left over in the manufacturing process, and working globally with business partners to collect and reuse this scrap as material for new vehicles through closed-loop recycling initiatives.
Since fiscal 2020, we have collaborated with aluminum manufacturers in North America and Nissan Motor Kyushu, where the new Rogue is manufactured, and in Europe, where the new Qashqai is manufactured, adopting a closed-loop recycling process that recycles aluminum scraps generated during manufacturing into aluminum plates for automobiles. The sorting and collecting of scrap in this process controls impurities, realizing horizontal recycling without quality deterioration, which contributes to reductions in the amount of new mined resources (aluminum ingots) used.

Initiatives to Expand Use of Recycled Materials (Resins)

In addition to our initiatives to expand use of recycled steel and aluminum, Nissan also strives to use more recycled resins.
As a closed-loop recycling initiative, we are collecting finished bumper scrap generated at our plants and sending it to our Oppama Plant, where we process it by removing the paint film and recycling it. These recycled resins have been given new life as bumpers in the Nissan LEAF and many other new vehicles. This initiative was expanded to Dongfeng Motor Co. (DFL), our joint venture in China, where they have been used to produce replacement bumpers since 2014.
Additionally, exchanged bumpers collected from dealerships are being recycled as materials used in under covers and for other components. An enhanced bumper return program allowed us to collect and recycle about 98,000 bumpers in fiscal 2020, representing 67.2% of bumpers removed at Japanese dealerships.
Furthermore, 30% of the automotive shredder residue (ASR) processed at dedicated processing plants is made from resins. In order to use these resins in automobiles, we are running a number of R&D projects on topics like optimizing the recycling process for resins recovered from ASR, liquidation of auto waste plastic and recycling polypropylene with microbes.*


Research on optimization of ASR recovered resin recycling process. Left photo is ASR, right photo is resin recovered from ASR

* These R&D projects are undertaken as part of our recycling optimization support business using surplus money from recycling fees deposited for three specified components (refrigerant, airbags, ASR) based on Japan's End-of-Life Vehicle Recycling Law.

End-of-Life Vehicle (ELV) Recycling

Nissan considers the three Rs — reduce, reuse and recycle — from the design stage for new vehicles. Since fiscal 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 end-of-life vehicles (ELVs*2) 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 2006. In fiscal 2020, we achieved a final recovery ratio for ELVs of 99.4%*3 in Japan, greatly exceeding the target effective recycling rate of 95% set by the Japanese government.

ELV processing consists of four phases. First, Nissan ELVs entering the dismantling process are recycled, including flat steel, cast aluminum, bumpers, interior plastic parts, wire harnesses and precious rare earth metals. Second, specific items like lithium-ion batteries are collected individually and directed to a dedicated recycling process. Third, residues from the dismantling process are crushed and the metallic portions recovered. Fourth, the resulting ASR is turned into recycled materials. Since 2004, Nissan and 12 other Japanese auto manufacturers have supported ASR recycling facilities, as called for in Japan's End-of-Life Vehicle Recycling Law, as an integral part of a system to recycle ASR effectively, smoothly and efficiently. Nissan is taking an important role in this joint undertaking.

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, the Japan Automobile Manufacturers Association, Inc. 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 2018.

*1. Calculated based on 1998 Japan Automobile Manufacturers Association definition and calculation guidelines (in Japan) and ISO 22628 (in Europe).
*2. ELV is an acronym for end-of-life vehicle.
*3. Based on Nissan research

Developing Biomaterials

Seat coverings made from biomaterials in Nissan LEAF.

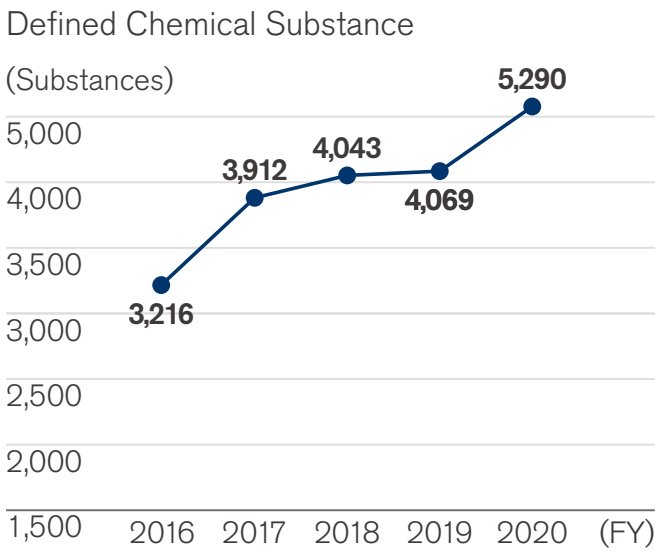
Nissan is promoting technical research to replace plastics and other resin materials used in automobiles with biomaterials derived from plants. NGP2022 contains concrete goals for biomaterials development, and these materials are already being used in cars. For example, the coverings on the seats in the Nissan LEAF are made using biomaterials.

Proper Use of Regulated Chemical Substances

Nissan revised its standard for the assessment of hazards and risks in the Renault-Nissan Alliance, actively applying restrictions to substances more stringent than existing regulations in areas of growing concern around the world. As a result, the number of substances covered by the Nissan Engineering Standard in fiscal 2020 rose to 5,290. These steps are thought to be necessary for future efforts in the repair, reuse, remanufacture and recycle loop for resources.

* Please click below for further details related to our governance system for chemical substances.

>>> P104



Expansion of Remanufactured Parts

Parts with the potential for recycling include those reclaimed from end-of-life vehicles, as well as those replaced during repairs. In Japan, we collect and thoroughly check the quality of these secondhand parts. Those that receive a passing grade are sold through our retail outlets as Nissan Green Parts. We sell these parts in two categories: remanufactured parts, which are disassembled and have components replaced as needed, and reusable parts, which are cleaned and tested for quality before sale.
In NGP2022, we are enhancing the deployment of Nissan Green Parts in Japan, and we're also strengthening management to deploy similar kinds of activities in Europe and North America, aiming for twice the parts coverage in 2022 compared to 2016. This initiative provides customers who seek to use cars for a long period of time with the new option of using remanufactured parts.

Alternator

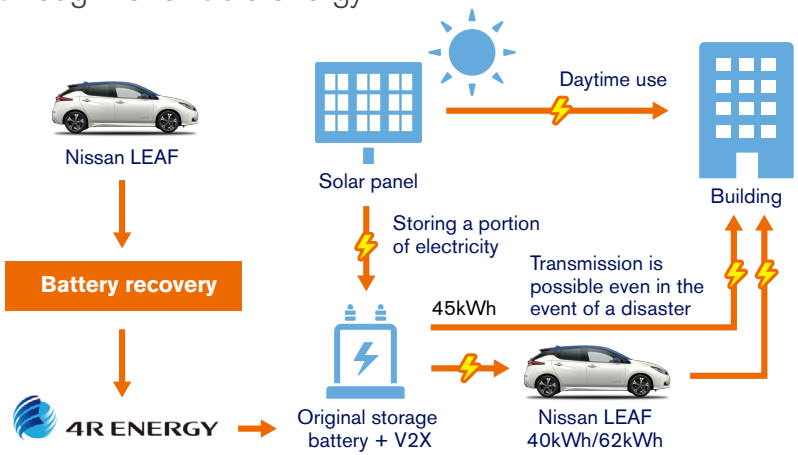
Air conditioning compressor

Starter motor

Joint Venture to Promote Second-Life Use for Batteries

Lithium-ion batteries used in Nissan's electric vehicles (EVs) retain capacity well beyond the useful life of the vehicles themselves. The "4R" business models — which reuses, refabricates, resells and recycles lithium-ion batteries — allows for their effective use as energy storage solutions in a range of applications, thus creating a much more efficient energy cycle of battery use.
As the EV market expands, we anticipate a need to utilize reusable lithium-ion batteries more effectively. In 2010, we launched 4R Energy Corp., a joint venture with Sumitomo Corp., that is engaged in establishing EV battery reuse and refabrication technologies. With the establishment of these technologies and an increase in the number of used batteries collected, in March 2018, operations commenced at Japan's first base and plant for the reuse and refabrication of used lithium-ion batteries located in the town of Namie, Fukushima Prefecture.
4R Energy is actively engaged in the development and production of various battery storage systems built with used Nissan LEAF batteries at the Namie facility. One example of these efforts is the development of stationary power storage systems that reuse 40 kWh batteries used in the Nissan LEAF for the purpose of enhancing resiliency. Since September 2019, this reuse stationary power storage system has been used in trials for procuring electricity using renewable energy at ten 7-ELEVEN convenience stores in Kanagawa Prefecture. Additionally, in conjunction with IKS Japan Co., Ltd., we are developing new models with vehicle-to-everything (V2X) functions that can also utilize electric power from EVs, sales of which launched in fiscal 2020 and are proceeding apace.

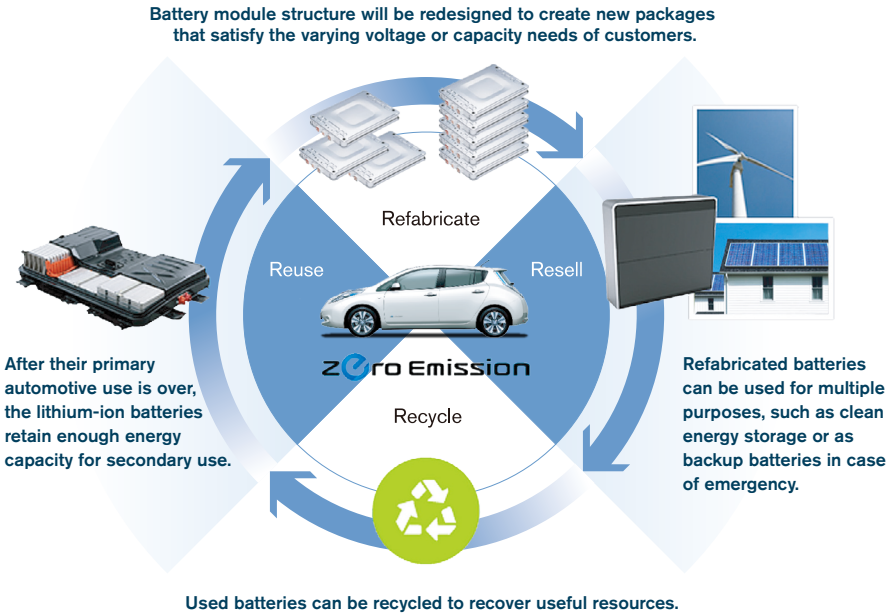
Overview of proof of concept for procuring electricity through renewable energy



At the same time, 4R Energy acquired the world's first UL1974*1 certification in June 2019, which is an international evaluation standard for evaluating repurposing batteries, and 4R Energy has been certified by a third-party organization for reusage and refabricating processes and product manufacturing with an emphasis on safety. Furthermore, in recognition of these activities, in October 2019, 4R Energy was presented with the Frost & Sullivan*2 "2019 Strategy Innovation and Leadership Award", and in March 2020, in conjunction with Nissan, 4R Energy and Nissan won the "Sixth Annual Japan Resilience Award 2020", sponsored by the Association for Resilience Japan*3.
We are extensively involved with 4R activities globally as well.

*1. The UL1974 Standard for Evaluation for Repurposing Batteries defines the process for determining and classifying the suitability of usage when battery packs, modules or cells used to drive EVs have finished their intended period of use. Evaluating reused batteries in accordance with this process enables the provision of reused batteries that are safe and give a clear understanding of remaining capacity to meet a variety of demands.
*2. Frost & Sullivan provides research and consulting services in 80 countries and over 300 major markets through a global network of more than 40 locations.
*3. In light of the results of the National Resilience Minister's Private Advisory Committee "National Resilience Roundtable", to ensure the "Fundamental Plan for National Resilience" is executed smoothly, the Council aims to build a resilient nation with cooperation among industry, academia, government and the private sector.

4R Concept



Reducing Use of Scarce Resources

Rare earth elements are scarce resources that are necessary for electrification. Reducing their usage is important because rare earth elements are unevenly distributed around the globe, and the shifting balance of supply and demand leads to price fluctuations.
Since the motor was first adopted in the 2012 Nissan LEAF, which reduced the use of rare earth elements by 40% compared to 2010, Nissan has continued to reduce the use of heavy rare earths in hybrid vehicle motors. In 2020, the new Note e-POWER has adopted magnets with 85% less heavy rare earths compared to 2010, and we will continue to conduct technical research on further reductions in the future. As a new initiative, Nissan is also promoting the development of rare earth metal recovery technologies from drive motor magnets. Up to now, in order to recycle magnets used in motors, multiple processes including manual disassembly and removal of the magnets have been required, making economic efficiency an issue. Nissan and Waseda University collaborated to establish technologies for recovering rare earth metals in highly pure states through direct dissolution using borate as a flux, eliminating the need to dismantle the motor rotors. Going forward, we will conduct trial testing aimed at practical implementation.
In these ways, with respect to motors, which are a key technology, Nissan is engaged in developments corresponding to the circular economy concept, from reducing the amount of rare earth metals used to reuse after use, that utilize resources efficiently and sustainably.

GRI102-49 GRI103-3 GRI306-2

Resource Dependency: Achievements in Waste Reduction

Thorough Measures for Waste Materials

Nissan actively promotes measures based on the 3R approach in its production processes whenever possible, striving to minimize the waste generated and maximize recycling efficiency by thoroughly waste sorting. At the end of fiscal 2010, we achieved a 100% recovery rate at all of our production sites in Japan, including five manufacturing plants, two operation centers and five affiliates. Overseas, we have reached 100% rates at plants in Mexico, Brazil, and elsewhere. We are striving to bring rates to industry-leading levels in each global region.

We have been making great efforts to reduce the number of wooden pallets and cardboard boxes used in import and export parts shipping. We began replacing them with units made from steel more than 30 years ago, and we rolled out plastic substitutes over 20 years ago that are foldable and can be reused. We have also been working with our Alliance partner Renault to expand use of globally standardized, returnable containers. Through design activities carried out concurrently with logistics operations, we have recently considered ways to optimize the shape of parts from the development stage, thus helping to reduce the packaging materials required.

Through such efforts, we plan to reduce waste from our production factories by 2% annually in Japan and by 1% annually worldwide—as compared to business as usual (BAU), that is, waste levels expected if no special steps had been taken.

Waste

Waste generated globally in fiscal 2020 amounted to 153,160 tons, decreased from 199,470 tons in fiscal 2019. Waste generated globally from production sites in fiscal 2020 was 145,529 tons★.

★ This figure is subject to assurance by KPMG AZSA Sustainability Co., Ltd. For details, please see here.
>>> P102

(FY)

	単位	2016	2017	2018	2019	2020
Total	ton	158,939	152,674	206,645	199,470	153,160
By region						
Japan	ton	61,115	61,327	69,829	63,294	48,921
North America	ton	45,459	35,177	64,514	58,970	48,043
Europe	ton	41,110	45,268	49,662	50,205	31,868
Other	ton	11,255	10,903	22,639	27,001	24,328
By treatment method						
Waste for disposal	ton	8,707	8,041	7,231	6,365	6,539
Recycled	ton	150,231	144,633	199,414	193,105	146,621

* Manufacturing base and office closures due to COVID-19 prevented the finalizing of FY2019 data in Sustainability Report 2020. FY2019 data has been updated for Sustainability Report 2021.

* For more information on Resource Dependency (Facility Waste).
>>> P242

WATER SCARCITY

GRI103-1

Policies and Philosophy for Water Resource Management

Demand for water is expected to continue to increase globally, driven by rising populations and economic development. 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. Forecasts suggest that the world will face a 40% shortfall in water supplies by 2030, and extreme weather events, natural disasters, water crises and other water-related risks rank highly in the annual Global Risks Report issued by the World Economic Forum. “Clean Water and Sanitation” is also one of the Sustainable Development Goals (SDGs) adopted by the United Nations in 2015. The 1.5° C Special Report* released by the Intergovernmental Panel on Climate Change (IPCC) in 2018 reported that risks and effects from extreme weather events, such as heavy rain and drought, would increase if temperatures rose by 1.5° C, and that such risks and effects would be even more severe and become widespread if temperatures rose by 2° C. Water resource management to mitigate water shortages, flooding and many other challenges is a key factor in promoting sustainable development.

Globally, the agricultural sector accounts for the largest share of water consumption at roughly 70%. The industrial sector comes second, consuming around 20% of water globally, and the municipal sector accounts for the remaining 10%. Automakers are not considered to face particularly high water risks within the industrial sector. However, we believe that reducing dependence on water resources is important to being a sustainable company and are taking steps to improve water quality management and reduce water usage across our production sites.

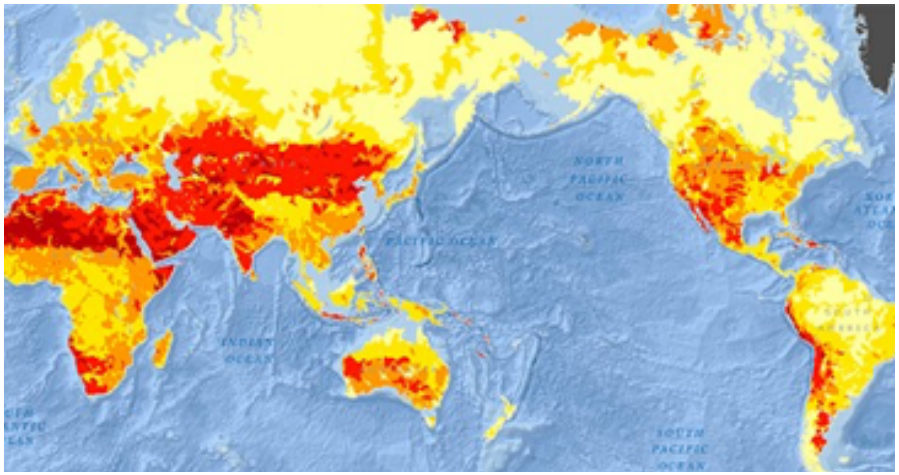
* Full title: An IPCC Special Report on the Impacts of Global Warming of 1.5° C Above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty.

GRI103-2 GRI303-2

Water Resource Management

Nissan manages wastewater quality to even stricter standards than required by local regulations at each of its production sites. At sites in Japan, we have further strengthened measures against water pollution by attaching water quality sensors to the discharge points of our wastewater treatment facilities to automatically suspend water discharge if water quality problems are detected. Processing recycled water using reverse osmosis (RO) membrane* has allowed some sites to achieve zero wastewater discharge.
Under the Nissan Green Program 2022 (NGP2022), we aim to reduce water intake at global production sites by 21% by 2022. In order to achieve this, we are taking steps to reduce water usage, such as sharing best practices among plants, investing in equipment and expanding the Nissan Energy Saving Collaboration (NESCO) team into “r NESCO” (r[esource] NESCO). Additionally, since the water resource situation varies considerably from region to region, we assess water risk using our own methods for each of our production sites throughout the world. At sites where a high level of risk is found, we prioritize measures to expand dedicated water sources by building reservoirs to collect rainwater, improving wastewater recycling efficiency and reducing external water intake.

Global Water Risks



Created based on the World Resources Institute's Aqueduct Water Risk Atlas (aqueduct.wri.org).

* Reverse osmosis (RO) membrane: The RO membrane is a type of filtration membrane that filters impurities such as ions and salts from water.

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Water Resource Achievements

Water Use Reduction

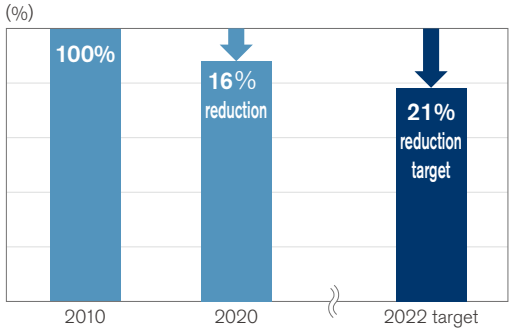
Plants producing Nissan vehicles and parts are located throughout the world, and they all use water as part of the production process. Nissan strives to manage and reduce water usage at every plant, aiming to achieve a 21% reduction per vehicle produced by fiscal 2022 from 2010 levels. As of fiscal 2020, we had already reduced water usage by 16%, when compared to 2010.

To help achieve this goal, 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. Our efforts at the Chennai Plant, in particular, were recognized as an excellent example of water resource management by the Confederation of Indian Industry (CII). At Nissan North America (NNA), plants are competing among themselves to find new ideas for reducing water usage, such as by filtering wastewater from pre-painting processes and thus improving water quality.

We are also working to reduce water usage at Nissan's Global Headquarters in Yokohama, Japan by processing rainwater and wastewater from kitchens and other internal sources to be reused for flushing toilets and watering some plants.

Chennai plant, honored by the Confederation of Indian Industry (CII).

Water Usage per Vehicle Produced (Global)



Promoting Reduced Water Use through Wastewater Recycling

We installed a sewage treatment facility at the India plant in 2019 to reduce water consumption. After treatment, wastewater was recycled and reused for flushing toilets and watering plants. Next, we added a treatment method using RO membranes to further improve water quality to be reused for cooling for the manufacturing process and cooling towers. As a result, we are able to reduce approximately 78,000 kiloliters of water consumption per year, which is equivalent to the amount of water used by about 320,000 households a day.

Innovative Car Wash Technique Introduced at Service Centers in India

Since 2014, the service centers of Nissan Motor India (NMIPL) have offered customers car washes that utilize an advanced foam washing technique.
A traditional car wash requires about 160 liters of water for one car, but NMIPL's new service cuts consumption to approximately 90 liters—a 45% reduction in water use.
Along with reducing water consumption, the foam wash service is environmentally friendly due to the non-use of hard chemicals, shortens washing time, and even enhances the gloss of cars by roughly 40%.

Water Input for Corporate Activities

In fiscal 2020, water input for corporate activities was 21,159 thousand m³, a 11% decrease compared with the fiscal 2019 level. Water input from production sites was 20,542,337 m³★.

★ This figure is subject to assurance by KPMG AZSA Sustainability Co., Ltd. For details, please see here.
>>> P102

(FY)

	Unit	2016	2017	2018	2019	2020
Total	1,000m³	29,118	26,197	26,420	23,656	21,159
Japan	1,000m³	15,563	13,115	13,022	11,918	10,797
North America	1,000m³	5,483	4,905	4,930	4,768	3,888
Europe	1,000m³	2,299	2,155	2,093	1,792	1,373
Other	1,000m³	5,774	6,023	6,376	5,178	5,101

Cleaner Effluent Through Wastewater Treatment

Nissan thoroughly processes wastewater at its various plants. Wastewater from two Nissan plants in Aguascalientes, Mexico, is used to maintain landscaping on the sites, with no offsite discharge.
We also are strengthening water pollution prevention measures in our Japanese plants. In preparation for unexpected occurrences, such as the discharge of oil, we have attached water quality sensors to the discharge points of wastewater treatment facilities. Discharge of water outside the grounds is automatically suspended if water quality problems are detected.

(FY)

	Unit	2016	2017	2018	2019	2020
Total	1,000m³	20,516	17,410	17,345	15,391	13,624
Japan	1,000m³	12,681	10,376	10,472	9,496	8,474
North America	1,000m³	4,028	3,382	3,190	2,746	2,351
Europe	1,000m³	1,767	1,564	1,539	1,389	1,094
Other	1,000m³	2,040	2,088	2,143	1,760	1,705
Quality						
Chemical oxygen demand (COD) Japan only	kg	29,730	26,451	21,149	18,795	14,865

* Click here for more information on Water Resource Management.
>>> P244

* Manufacturing base and office closures due to COVID-19 prevented the finalizing of FY2019 data in Sustainability Report 2020. FY2019 data has been updated for Sustainability Report 2021.

THIRD-PARTY ASSURANCE

GRI102-56

KPMG

Independent Assurance Report

To the Representative executive officer, president and CEO of Nissan Motor Co., Ltd.

We were engaged by Nissan Motor Co., Ltd. (the "Company") to undertake a limited assurance engagement of the environmental performance indicators marked with a star ★ (the "Indicators") for the period from April 1, 2020 to March 31, 2021 included in its Sustainability Report 2021 (the "Report") for the fiscal year ended March 31, 2021.

The Company's Responsibility

The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company's reporting criteria"), as described in the Report.

Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. We conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' and the 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements' issued by the International Auditing and Assurance Standards Board. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report and reviewing the Company's reporting criteria.
- Inquiring about the design of the systems and methods used to collect and process the Indicators.
- Performing analytical procedures on the Indicators.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and recalculating the Indicators.
- Visiting the Company's Yokohama Plant selected on the basis of a risk analysis.
- Evaluating the overall presentation of the Indicators.

Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the Indicators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the Report.

KPMG

Our Independence and Quality Control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

KPMG AZSA Sustainability Co., Ltd.

KPMG AZSA Sustainability Co., Ltd.
Tokyo, Japan
July 13, 2021

[Remarks] Basis of calculation for CO_2 emissions, waste generated and water input subject to third-party assurance

- CO_2 emissions from production sites: Calculated based on Nissan internal standards. The energy use data of each site is based on invoices from suppliers, which are multiplied by a CO_2 emissions coefficient publicly available for each production site.
- CO_2 emissions from purchased goods & services: Calculated by multiplying the amount of CO_2 emissions per vehicle by the annual global production volume in fiscal 2020, covering raw materials purchased in conjunction with automobile production.
  CO_2 emissions per vehicle are calculated by applying the Database on GHG Emission Factors (ver.3.0) for Carbon Footprint of Products Pilot Project to the amount of raw material input per typical vehicle as of 2010.
- CO_2 emissions from the use of sold products: Calculated using the average regional CO_2 emissions per vehicle multiplied by the regional estimated average lifecycle mileage and multiplied by fiscal 2020 sales volumes. The average CO_2 emissions for the use phase (including direct emissions only) per unit are calculated for each of our main regions (Japan, U.S., EU and China) and extrapolated from average emissions of these markets for other markets. The Sustainable Mobility Project (SMP) model issued by the International Energy Agency was used to determine estimated average lifecycle mileages.
- Scope 3 emissions figures are estimates subject to varying inherent uncertainties.
- Waste generated from production sites: Calculated based on Nissan internal standards. The discharged waste is based on data from truck scales at the sites or data reported by disposal contractors. All discharged waste within the sites concerned is targeted. However, materials recycled in-house, used in reproduction (reused by Nissan) or recycled (as salable, valuable materials) are not categorized as generated waste.
- Water input from production sites: Calculated based on Nissan internal standards. Water input is the water withdrawal amount according to billing meters or company meters installed on site. The water withdrawal amount includes drinking water (tap water) , industrial-use water, underground water (spring/well water) and rainwater or the like.

STRENGTHENING OUR BUSINESS FOUNDATIONS TO ADDRESS ENVIRONMENTAL ISSUES

GRI103-2 GRI103-3

Environmental Governance

* For more information on our Environmental Governance >>> P052

Enhancing Environmental Management Based on ISO 14001

As of January 2011, the Nissan Global Headquarters and all other main Nissan facilities in Japan have acquired ISO 14001 certification for environmental management systems. We have appointed an environmental management officer to oversee our environmental activities. Through steady application of the PDCA (plan, do, check, act) cycle, we are improving our environmental performance worldwide. The coordinated goals set by the environmental management officer for the Company-wide management system are cascaded down to the employees working in all facilities through local offices.

Nissan's ISO secretariat oversees companywide efforts, while local offices in Japan are responsible for 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 made toward established goals, to share best practices, to improve management systems, to develop plans for the next fiscal year and to communicate requests from local facilities and divisions. The items discussed are reported to the environmental management officer twice a year (once during the management review conference) so that Nissan can decide on needed improvements.

To confirm that management is functioning properly with respect to environmental management, we periodically retain third-party organizations to conduct audits. Additionally, to strengthen compliance, we conduct internal audits with respect to areas covered by third-party audits as well as all other environmental activities, prioritizing adherence to government reporting requirements and identifying risks. These third-party and internal audit initiatives are aimed at establishing a system capable of detecting human error, however small, and pursuing improved operations.

Nissan's production plants outside Japan have also acquired ISO 14001 certification. Nissan's policy is to establish environmental management systems in all regions where we operate in accordance with the same standards.

Nissan's Voluntary Operational Standards

Stricter controls on environment-impacting substances are being implemented in countries around the world. Examples include the European ELV Directive, the European Union's Registration, Evaluation, Authorization 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. The Japan Automobile Manufacturers Association has launched a voluntary program to help minimize the potential

release of formaldehyde, toluene and other volatile organic compounds (VOCs)* in vehicle cabins. This program utilizes the VOC guidance value established by the Ministry of Health, Labor and Welfare for specific substances in January 2002 to be met for all new models manufactured or sold by Nissan in Japan after April 2007.

Nissan is strengthening its management of environment-impacting 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 by NGOs as dangerous. In 2007, these policies, which restrict environment-impacting 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 (excluding OEM vehicles) launched globally since July 2007. To control VOC use in car interiors, Nissan adopted the voluntary targets of the Japan Automobile Manufacturers Association as our own standards for global operations, and we are reviewing and reducing the use of prohibited and controlled chemical substances in materials and adhesives for seats, door trim, floor carpet and other parts.

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. For the 2017 revision, the members of the Renault-Nissan Alliance implemented shared standards based on a reassessment of select criteria for hazards and risks that go beyond the level of compliance, strengthening Alliance activities.

We build and maintain communication and management systems throughout the supply chain. For example, we disclose information to users and submit REACH reports to the relevant authorities about the vehicles and parts produced in or exported to Europe from Japan and other countries (including some from the United States). We also comply with Classification, Labeling and Packaging of Substances and Mixtures regulations.

* VOCs: Organic chemicals that readily evaporate and become gaseous in the atmosphere

GRI306-3 GRI307-1

Sanctions and Government Guidance at Nissan Production Facilities

During fiscal 2020, in relation to the environmental management system, none of Nissan's production facilities received notifications or sanctions from the government regarding significant violations of environmental laws or regulations.

Raising Employee Awareness

Nissan's environmental activities are enabled by the knowledge, awareness and competency of its employees. Based on ISO 14001 standards, we will conduct employee education rooted in the Nissan Green Program 2022

(NGP2022) regarding CO_2 emission reductions, energy, water consumption and waste. In addition, education regarding environmental accident prevention and the management of hazardous materials is provided every year to all employees, including those from affiliated companies working in our production facilities. Training programs with quantitative evaluation are deployed to improve the skills and knowledge of each employee on how to reduce environmental impact in their activities. The content of these training programs is updated every year.

In Japan, we implement a curriculum to educate new employees during orientation and organize seminars for middle managers to deepen their understanding of NGP2022 and environmental issues surrounding the auto industry. We also hold "town hall" meetings to promote dialogue between executives and employees. Employees can stay up to date on our latest environmental initiatives through features in the intranet, internal newsletters and in-house video broadcasts. Overseas, we share information and provide education to employees through the intranet, videos, events and various other communication approaches suited to each region.

Employee-Initiated Activities and Evaluation System

In fiscal 2008, we added "environment" to the range of kaizen issues addressed by quality control (QC) circles. This has created opportunities for employees to think proactively and propose ideas to improve environmental aspects of our business. Managers encourage the active participation of employees by communicating how these activities of QC circles are linked to the achievement of our midterm business plan. The ideas proposed by employees are evaluated by managers and QC circle secretariats for their potential contribution to environmental improvement, among other factors, after which we may implement those with the highest potential.

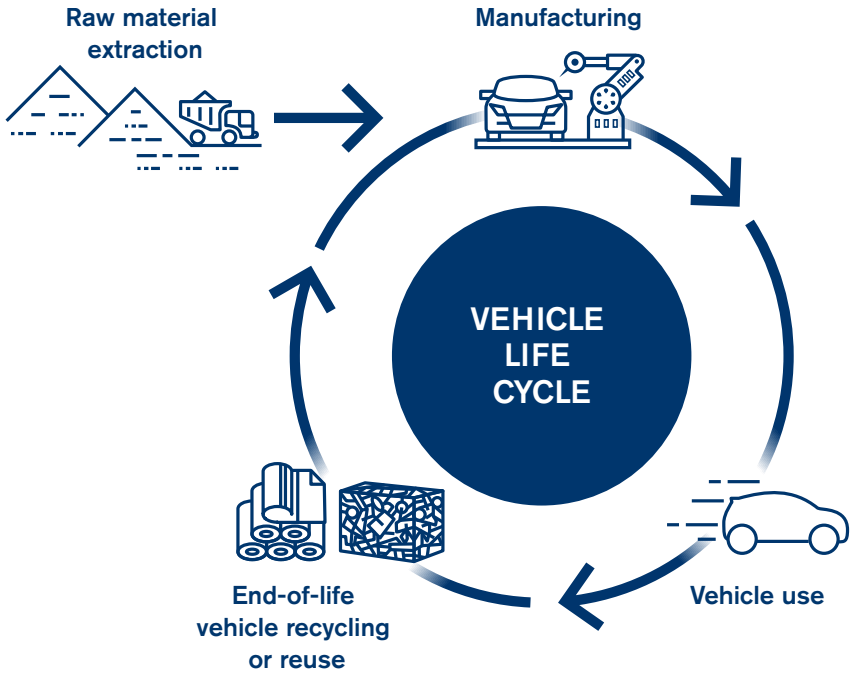
The knowledge and skills of the frontline employees on CO_2 emission reduction, energy management, water conservation and waste and landfill reduction have been compiled in a best-practices manual and shared among global facilities. We hold contests in some facilities during officially designated months in Japan to keep employees motivated about participating in environmental activities. These include the Energy Use Reduction Idea Contest in February (energy-efficiency month), the Water Usage Reduction Idea Contest in June (environment month) and the Waste Reduction Idea Contest in October (3R promotion month).

We also use various methods to reward employees for their contributions to environmental improvement activities. These activities are included in the annual performance goals used at some Japanese and overseas locations. This system assesses employees' achievement of goals, reflecting this in performance-related elements of employee bonuses.

Employees are also recognized for environmental improvement through Nissan prizes presented by the CEO or other executives, awards given by plant heads and "THANKS CARD" recognition from managers for excellent work or achievements.

Lifecycle Assessment to Reduce Environmental Impact

Nissan ensures solid environmental management policy by routinely assigning personnel to conduct risk management and having supervisors confirm their suitability and conducting inspections. We also identify potential risks by conducting lifecycle assessments (LCAs). The LCA method is used to quantitatively evaluate and comprehensively assess environmental impact, not just when vehicles are in use, but at all stages of their lifecycle, from resource extraction, manufacturing and transport to disposal.
During the period of NGP2022, we are applying the LCA method to ensure steadfast implementation of our environmental activities, such as by identifying their progress and examining ways to further reduce our environmental impact. We are also carrying out LCAs for new technologies to develop environmentally friendlier vehicles.
Our LCA methods have been certified by the Japan Environmental Management Association for Industry since 2010 and since 2013 by third-party TÜV Rheinland in Germany (ongoing as of November 2019). The latter certification is based on ISO 14040/14044 standards and validates the environmental impact calculations in our product LCAs.
We will use the calculations above during the NGP2022 period to conduct LCAs of new vehicles and technologies and enhance efficiency during both the manufacture and operation of vehicles with the aim of further reducing environmental impact during the lifecycle of Nissan vehicles.

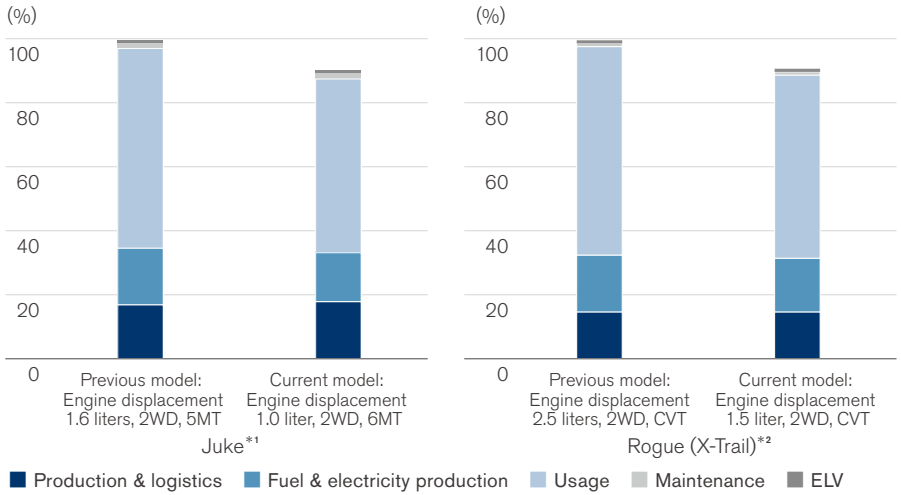


Global Top Selling Model's Lifecycle Improvements

We have been expanding the application of the LCA method and enhancing the understanding of the environmental impact of our products in quantitative terms, especially our best-selling models worldwide. Coverage on a unit basis has reached approximately 80% of models globally and approximately 90% in Europe.

With the Altima and Rogue, for example, improvements in internal combustion engine efficiency and vehicle weight reduction have led to both enhanced safety features and lower CO_2 emissions.

Lifecycle CO_2 Equivalent Emissions (CO_2, CH_4, N_2O, etc.)

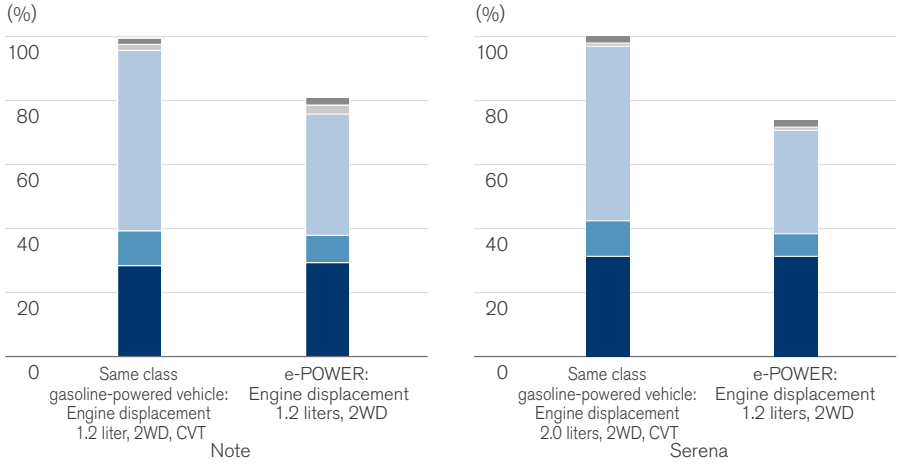


*1 Production in EU, 150,000 km driven in EU (basis for comparison).
*2 Production in United States, 120,000 miles driven in United States (basis for comparison).

LCA Comparison for e-POWER Models

Nissan introduced its new e-POWER powertrain in 2016, marking another significant milestone in the electrification strategy with lifecycle emission improvements.
Compared to their gasoline-powered counterpart models, the Note e-POWER and Serena e-POWER have achieved an 18% and 27% reduction in CO_2 emissions, respectively. Electrified e-POWER vehicles use a system in which a gasoline engine operates only under certain circumstances and is used to generate electricity.
As a result, e-POWER vehicles achieve lower exhaust emissions and better fuel efficiency for driving than conventional gasoline engines. Also, since an e-POWER vehicle only requires a small battery (unlike one that is 100% electric), emissions from the manufacture of dedicated EV parts such as batteries can be kept at a level only slightly above that for parts for conventional vehicles.
There is future potential for further reductions in CO_2 emissions through additional weight reductions and the optimization of e-POWER energy management.

Lifecycle CO_2 Equivalent Emissions (CO_2, CH_4, N_2O, etc.)

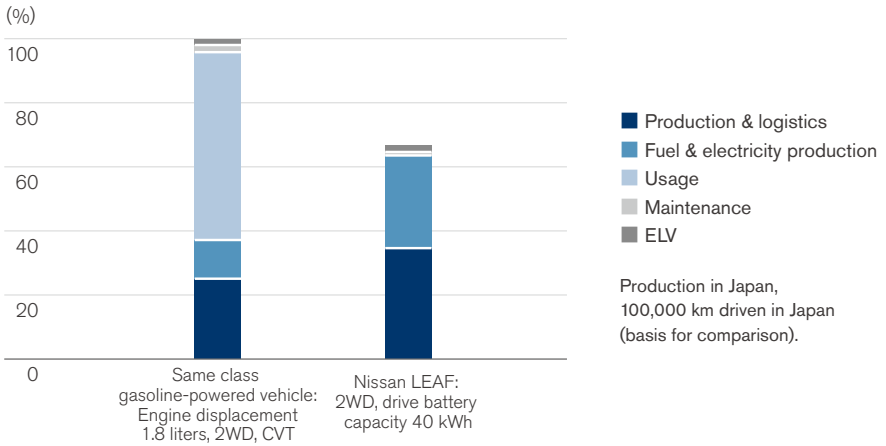


Production in Japan, 100,000 km driven in Japan (basis for comparison).

LCA Comparison for the Nissan LEAF

Compared to conventional vehicles of the same class in Japan, the Nissan LEAF results in approximately 32% lower CO_2 emissions during its lifecycle.
We are making efforts to reduce CO_2 emissions during EV production by improving the yield ratio of materials, using more efficient manufacturing processes and increasing the use of recycled materials.
We are also continuing to pursue technology development for electric powertrains, power savings on ancillary devices and the use of renewable energy to reduce CO_2 emissions over the entire lifecycle of EVs.
Also, at the end-of-life stage, used batteries can be utilized for energy storage in various ways, contributing to reduced CO_2 emissions in society.

Lifecycle CO_2 Equivalent Emissions (CO_2, CH_4, N_2O, etc.)



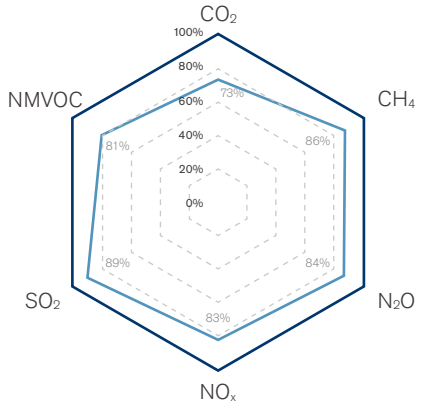
Production in Japan, 100,000 km driven in Japan (basis for comparison).

Lifecycle Improvements Beyond Climate Change

Nissan is expanding the scope of LCAs to include not just greenhouse gases but also a variety of chemicals amid growing societal concerns over air quality and ocean acidification and eutrophication. Our calculations show that, compared to conventional gasoline engines, the new Serena e-POWER is significantly more environmentally friendly, achieving 11% and 27% emission reductions for all targeted chemical substances and achieving environmental benefits throughout its lifecycle.

GRI308-1 GRI308-2

Emissions Improvement in the New Serena e-POWER over Its Lifecycle



Production in Japan, 100,000 km driven in Japan.

Stakeholder Engagement

Working with Suppliers

As part of NGP2022, we are working to improve suppliers' environmental performance via the following three initiatives:

▪We encourage all our global suppliers to manage parts and materials with a shared environmental philosophy in alignment with the Nissan Green Purchasing Guidelines. These guidelines are based on The Renault-Nissan Purchasing Way and the Renault-Nissan Supplier CSR Guidelines and provide detailed information regarding environmental matters. In August 2018, based on NGP2022, we revised the content of the guidelines, adding requests that suppliers undertake their own environmental activities. Additionally, in May 2019, in order to strengthen management of environment-impacting substances, we added requirements dealing with supplier self-diagnosis of environment-impacting substance management and related topics, and asked all suppliers to follow them.

▪We also participate in the supply-chain program of CDP (previously known as the Carbon Disclosure Project), an international nonprofit, through which we request information on climate change and water from suppliers and conduct comprehensive performance reviews. During fiscal 2020, we asked our large contract suppliers to take part in the supply-chain program to provide responses on their environmental activities. 85% of them participated in the CDP program on climate change data and 81% in the CDP program on water security. Based on the results from these surveys, we engaged with a number of suppliers in order to incentivize work on the ongoing improvement of their environmental initiatives.

▪We are promoting THANKS (Trusty and Harmonious Alliance Network

Kaizen activity with Suppliers) activities, a joint improvement program that emphasizes trust and cooperation with suppliers. Regarding energy use (electricity and gas) and CO_2 emission reduction in particular, we are taking the lead in cooperating with our main suppliers as part of the energy-efficient THANKS activities, based on the initiatives of our internal production facilities.

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. Meetings with major consolidated production companies in Japan are held to exchange views on cooperation toward the goals outlined in NGP2022. The meetings lead to a deeper shared understanding of the details of NGP2022 and the initiatives undertaken by each company.

Working with Dealerships

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, in addition to annual reviews and certification renewal audits carried out every three years by Nissan Motor Co., Ltd. (NML). As of the end of March 2020, the system has certified approximately 2,700 dealerships of 153 dealers, including parts dealers, as Nissan Green Shops.

Working with Future Generations

Today’s youths are the future leaders of our society. We are working to share information on environmental issues with the younger generation, and to raise awareness among tomorrow’s leaders.
We have been conducting environmental programs for students in school visits in Japan since 2008 in which more than 100,000 students had participated as of March 2020. In NGP2022, we will further expand the program in Japan and in other countries.

Key Activities in NGP2022

Youth education programs, such as Nissan Waku-Waku Eco School, an interactive program delivered by Nissan employees to schoolchildren, will be expanded globally to:

- Share knowledge of global environmental issues
- Introduce our environmental initiatives, such as the Nissan LEAF electric vehicle and our other green technologies

Through environmental education, the program encourages participants to adopt eco-friendly activities in their daily lives.

GRI304-1 GRI304-2 GRI304-3 GRI304-4

Working with NGOs

Nissan believes that environmental activities are critical in social contribution activities, thus we are engaged in various activities to realize a low-carbon society, including implementing educational programs to deepen understanding of global environmental issues. At the same time, in order to respond to the increasing complexity of environmental issues, we believe that it is effective to collaborate with NGOs, NPOs, governments and various other stakeholders to enhance these activities while making the most of our mutual strengths.
Our Corporate Philanthropy Goal is to realize a cleaner, safer and more inclusive society. NGP2022 seeks to support local communities through various projects by collaborating globally with NGOs to respond to issues such as climate change and water scarcity.

Key Activities in NGP2022

·Fostering employees environmental awareness through participation in World Wide Fund for Nature Japan (WWF Japan) campaigns

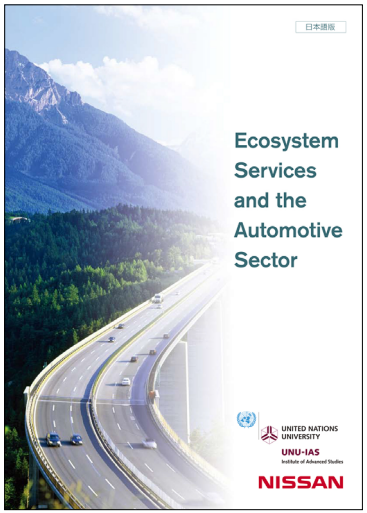
·Continue participation in WWF's worldwide Earth Hour environmental enlightenment campaign toward greenhouse gas emission reduction

·Collaboration with Conservation International on protection of a critical watershed area Support for a forest restoration project through a Ridge to Reef approach in Bali, Indonesia. Create jobs and build capacity* by developing community-based environmental conservation projects.

* Build and improve capacities that groups, organizations and society need to achieve their goals

Priority Issues for Automobile Manufacturers Regarding the Protection of Air, Water, Soil and Biodiversity

The United Nations Millennium Ecosystem Assessment report issued in 2005 concluded that ecosystem services had degraded over the past 50 years more rapidly and extensively than in any comparable period in history. Humankind depends on a number of ecosystem services, including the provision of food and fresh water, climate regulation and protection from natural disasters. The automotive industry must recognize both its impact on ecosystems and its dependence on these services. Companies today face the pressing need to balance environmental preservation and economic progress as they pursue their business activities.
Using methods identified in the Corporate Ecosystem Services Review*1, we have evaluated the value chain from the extraction of material resources to vehicle production and operation. We have identified three response priority areas as an automobile manufacturer: energy sourcing, mineral material sourcing and water usage. We published a report titled "Ecosystem Services and the Automotive Sector"*2 in 2010 collating the outcome of this work.
Our calculations in June 2013 showed that more than 20 times as much water was used upstream in the supply chain than by Nissan itself. We are following up by re-evaluating and further developing our existing environmental initiatives and



ecosystem conservation efforts from the viewpoint of business risks and opportunities.

*1 Developed by the World Resources Institute in cooperation with the World Business Council for Sustainable Development and Meridian Institute, based on the UN Millennium Ecosystem Assessment.

*2 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

* For more information on how we are strengthening our business foundation to address environmental issues.
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