



Toyota's Views on Climate Public Policies 2022

CONTENTS

Main changes from last year

- Added a section that describes Toyota's stance on individual policies from Japan, the US, and Europe
- Updated our climate-related public policy activities
- Increased the number of associations reviewed, and updated our review methodology

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Introduction

Toyota is striving to provide substantial information to our stakeholders so that they can better understand Toyota's efforts to achieve carbon neutrality. In doing so, we are referring to the standards presented by major investors.

At the end of last year, we disclosed our basic stance on important climate related policies and specific activities in 2021, and an overview of our industry associations. We have also promised to update the contents of this disclosure annually, while listening to feedback from our stakeholders.

In 2022, Toyota is accelerating its efforts and investments to achieve carbon neutrality, while at the same time consulting with governments in each region and country to improve the environment for the promotion of electrification.

We are pleased to release the "2022 version," which summarizes our latest initiatives, while also reflecting the comments and suggestions from our stakeholders on last year's disclosure.

Environmental Initiatives

In 1992, we first published The Toyota Earth Charter and updated it in 2000, which for the first time announced publicly the broad polices by which Toyota would engage with the world, cooperate and contribute to society and pursue environmental technologies. It also announced broad action guidelines for product design and manufacturing, choosing business partners, participating as a member of society, and for public disclosure. Lastly, it outlined a corporate governance structure.

Acting on continuous improvement, Toyota took a step beyond the Earth Charter and announced the Toyota Environmental Challenge 2050 in October 2015, 2 months before the Paris Agreement was adopted. The six challenges within the Toyota Environmental Challenge 2050 are: Life Cycle zero CO₂ emissions, New vehicle zero CO₂ emissions, Manufacturing plant zero CO₂ emissions, Minimize and optimize water usage, Establish a recycling-based society, and Establish a future society in harmony with nature. These six specific challenges acting together will guide Toyota towards its aim of achieving zero CO₂ emissions, a net positive environmental impact, and will assist Toyota to contribute to the realization of a sustainable society.

In 2020, Toyota announced the Seventh Toyota Environmental Action Plan-2025 Target, a new five-year action plan to achieve the Environmental Challenge 2050. Under this new target, we will accelerate environmental initiatives and contribute to the realization of a sustainable society including the Sustainable Development Goals (SDGs). We also formulated regional 2025 targets for six regions in line with the 2025 Target.

The following pages explain Toyota's views on Climate Public Policy, which is a natural extension of what Toyota has deeply believed for a long time on environmental and social contribution.



In the area of vehicle development, in 1997, Toyota launched the Prius, the world's first mass-production hybrid electric vehicle (top picture). But in fact, our development of battery EVs had started before that. In 1992, we established the Electric Vehicle Development Division, and we introduced the RAV4 EV to the market in 1996 (bottom picture).

Toyota Environmental Challenge 2050

<https://global.toyota/en/sustainability/esg/challenge2050/>



Toyota Aiming to be Carbon Neutral by 2050

As part of efforts to pass our beautiful “Home Planet” to the next generation, Toyota has identified and is helping to solve issues faced by individuals and overall society, which Toyota calls “Achieving Zero,” hoping to help reduce the negative impacts caused by these issues to people and the environment to zero. Additionally, Toyota is also looking “Beyond Zero” to create and provide greater value by continuing to diligently seek ways to improve lives and society for the future.

We leverage strengths fostered through manufacturing, producing technological innovation in application to CASE to expand the potential of cars, striving to provide services that provide freedom of mobility to all, in an effort to contribute to the achievement of the SDGs. Solving environmental challenges is an urgent issue that we must seriously tackle, and Toyota is doing its utmost to achieve carbon neutrality by 2050. Furthermore, we are targeting carbon neutrality by 2040 in Europe, and have already established bold commitments for our manufacturing plants, vehicles, purchased goods and services, and logistics operations.

It is significant that the popularization and actual usage of eco-friendly vehicles will contribute to reductions in CO₂. In doing so, we believe it is necessary to provide customers with the best environmental vehicle options to suit their needs, as well as economic conditions, energy policies, industrial policies, and customer needs, which vary greatly from country to country and region to region.

For this reason, Toyota believes in the idea of “introducing sustainable vehicles practically” and is developing a full line-up of electrified vehicles—comprising HEVs, PHEVs, BEVs, and FCEVs—in preparation to offer its customers a wide range of choices. We have sold a cumulative total of more than 20.3 million electrified vehicles since 1997. Those electrified vehicles over their lifetime, have prevented an estimated 162 million tons of greenhouse gas from entering the atmosphere (As of March 2022).

The latest Sixth Assessment Report (2022) of the IPCC (United Nations Intergovernmental Panel on Climate Change), a scientific review of the world's latest findings, states that in addition to Electric vehicles powered by low emissions electricity, the use of sustainable biofuels, low emissions hydrogen, and derivatives (including synthetic fuels), and fuel efficiency improvements are also effective ways to mitigate CO₂ emissions. We believe that Toyota's approach to providing diverse options is consistent with such scientific findings.

Also, in September, Toyota was certified by the Science Based Targets initiative (SBTi) as meeting the 1.5°C standard for its Scope 1 and 2 reduction targets. In addition to this certification, our CO₂ reduction targets for new vehicles were approved as meeting the well bellow 2°C standard. The evaluation from SBTi confirms that our approach is consistent with scientific findings.

Carbon neutrality in the automotive industry requires an integrated approach between renewable energy policy, charging infrastructure, vehicle purchase incentives, supplier support, and battery recycling systems. It requires a holistic whole-of-economy effort. Success will be critically dependent on collaboration with, and contributions by, various stakeholders including governments, industry associations, fuel and infrastructure providers, consumers, and NGOs. Toyota cannot achieve carbon neutrality on its own - we truly need everyone's support. Therefore, we will continue to strengthen cooperation between all stakeholders.



Cumulative Sales of Electrified Vehicles

20.3 million

Cumulative CO₂ emissions reduction effect

162 million tons ※ As of March 2022

Validation and approval of Toyota's emissions reduction targets by the SBTi

https://global.toyota/pages/global_toyota/sustainability/report/sdb/sdb22_en.pdf#page=48

Toyota's Perspective on Public Policy

Toyota's mission is to provide goods and services that make people throughout the world happy, or in other words, to "mass produce" happiness. We aim to be the "best-in-town company" that is loved and relied upon by everyone in the community.

In the area of climate change, it is extremely important to promote electric vehicles globally. We believe the role of the government to promote energy policies and charging infrastructures in order to achieve this goal is critical.

Toyota is in constant dialogue with governments in various countries and regions, and when requested, we are always willing to be of service by sharing our technical and consumer knowledge. We do this transparently and always in full accordance with the spirit and letter of the law.

In collaboration with our stakeholders and learning from each other, Toyota seeks to ensure that public policy, societal needs, technology development, and consumer needs are aligned to the greatest extent possible, and make sure we progress towards carbon neutrality.

Specifically, Toyota will contribute through such initiatives listed below.

- Build positive relationships with governments and their administrative agencies, regulators, mainstream major political parties, non-profit organizations, local communities, customers, dealers, suppliers, and employees
- Have our executives and employees participate in various industry associations across the globe and contribute to their public policy advocacy
- Disclose our views on Climate Public Policies

Governance

Toyota is committed to enhancing corporate governance to ensure sustainable growth and the stable long-term growth of corporate value.

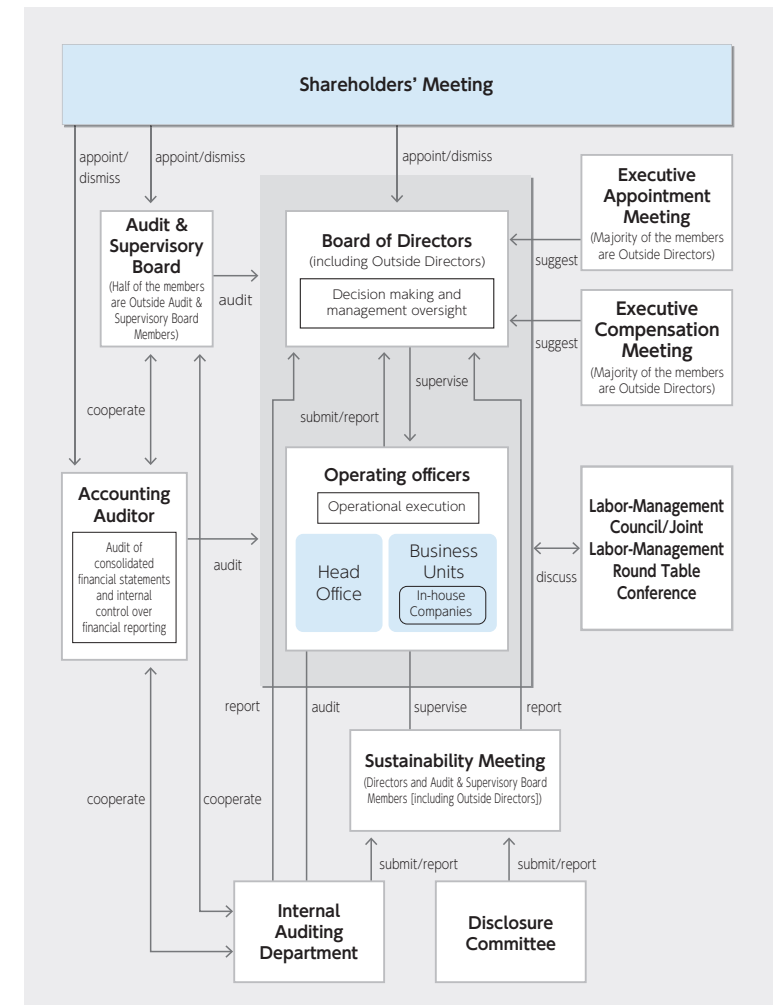
At Toyota, the Board of Directors is the ultimate decision-making and oversight body for addressing climate-related issues. The Board deliberates and oversees related strategy, major action plans, and business plans, and important climate-related matters are included in the Board's agenda. Furthermore, Outside Audit & Supervisory Board Members also take part in Board of Directors meetings. Final decisions are rendered by the nine Members of the Board of Directors, but they incorporate the views of the Outside Audit & Supervisory Board Members, who bring diverse backgrounds. In recent years, Outside Members of the Board of Directors and the Audit & Supervisory Board speak on almost all proposals.

Also, the Outside Directors and Outside Audit & Supervisory Board Members often hold study meetings, where they discuss medium- and long-term issues. In particular, they spent a considerable amount of time discussing issues related to carbon neutrality in the run-up to the BEV strategy briefing, which was held last year. In this way, Outside Members of the Board of Directors and the Audit & Supervisory Board are monitoring business execution and expressing the views of outside stakeholders on medium- and long-term issues.

We also set periodic opportunities, besides the Board of Directors meetings, for two-way communication between Outside Members of the Board of Directors and Audit & Supervisory Board as well as the operational execution side on important management issues and medium- to long-term issues, including carbon neutrality.

In addition, Toyota deliberates on and monitors management and corporate activities based on views of various stakeholders through a wide variety of bodies for deliberations, including the "Labor-Management Council" and the "Joint Labor-Management Round Table Conference."

Toyota has been continuing its efforts to respond swiftly to the rapidly changing external environment, and we will further press forward with our innovative changes.



Details on our corporate governance

Corporate Governance Report

<https://global.toyota/en/ir/library/corporate-governance/>

Integrated Report

https://global.toyota/pages/global_toyota/ir/library/annual/2022_001_integrated_en.pdf

Our Stance on Climate-Related Policies

This section describes Toyota's stance on climate-related policies.

Toyota's Stance on the Paris Agreement

Toyota supports the Paris Agreement and has committed to action in line with its requirements. In addition, Toyota will act while referring to IPCC's scientific knowledge. The Paris Agreement was adopted by 196 Parties at COP 21 in Paris, on December 12, 2015 and entered into force on November 4, 2016. Its goal is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.

Toyota's Stance on Carbon Neutrality

Toyota intends to fully concentrate on achieving carbon neutrality by 2050, and in order to do so, it is necessary to reduce CO₂ in the "Producing", "Transporting", and "Using" process of energy.

We have been steadily advancing our electrification strategy for more than twenty years, which began with our launch of the Prius in 1997. Also, in the "Toyota Environmental Challenge 2050" which was announced in October 2015, shortly before the adoption of the Paris Agreement, we were among the first to declare our commitment to reducing CO₂ on a life cycle basis, and we have been promoting comprehensive efforts. Toyota believes that policy and financial measures by the government are necessary to further promote electrification in the future, and we are consulting with the government for strong support.

Toyota's Stance on Renewable Energy

< "Producing" Energy >

In order to decarbonize the process of "Producing" energy, the spread of renewable energy is essential. We support the maximum introduction of renewable energy as a "major power source" with low cost, stable supply and responsible business discipline.

Toyota is already investing heavily in wind, solar and other renewable power projects around the world. Since 2019, Toyota has achieved a 100 percent renewable energy introduction rate at all plants in Europe, four plants in South America, as well as on the MIRAI production line in Japan. We will continue our efforts to make our plants carbon neutral by 2035.



Skilled Manufacturing Key to the Future

<https://global.toyota/en/newsroom/corporate/35433493.html>

carbon neutrality at all global plants by 2035

Toyota's Stance on Energy Transition and Zero Carbon Technologies

<“Transporting” Energy>

In Japan, it is essential that the power transmission and distribution network be strengthened and made next-generation in order to transmit renewable energy to demand areas and to utilize distributed energy resources such as electric vehicles. We expect the Japanese government to continue to develop a master plan for the development of the power grid and steadily implement it. We also hope the government will deregulate regulations to promote the use of BEVs as virtual power plants.

Toyota regards hydrogen as a promising option to achieve carbon neutrality and is developing a new portable hydrogen cartridge prototype that can be carried around, as well as working to improve the efficiency of hydrogen transportation. The IPCC states that low emissions hydrogen will contribute to the mitigation of CO₂ emissions, and we will continue to ask the government to accelerate regulatory reviews, subsidies and preferential taxation, etc., towards the realization of a hydrogen society.

<“Using” Energy>

We agree with IPCC's latest report which states “Electric vehicles powered by low emissions electricity offer the largest decarbonization potential for land-based transport”. We are serious about promoting BEVs and key examples of initiatives already announced include the following.

- Toyota and Lexus are aiming to achieve global sales of 3.5 million BEVs per year by 2030
- Toyota plans to roll out 30 BEV models by 2030, offering a full lineup of BEVs in the passenger and commercial segments globally
- Lexus aims to realize a full lineup of BEVs in all vehicle segments by 2030 and to have BEVs account for 100% of its vehicle sales in regions where necessary conditions are ready such as Europe. Also, Lexus aims for BEVs to make up 100% of its global vehicle sales in 2035
- Toyota will invest 4 trillion yen in BEV related R&D and capital investment

We are also making various efforts on charging infrastructure, which is indispensable for the spread of BEVs. In Japan, more than 90% of our dealers are equipped with standard chargers, and we have announced that we will install quick chargers at our dealers nationwide. In addition, we have invested in e-Mobility Power, Inc., which has more than 20,000 recharging facilities in Japan, and are working to expand the recharging network.

Support by the government is essential for the spread of BEVs. Toyota will continue to ask the government to expand and accelerate the development of charging infrastructure (especially in rural areas where public transportation is insufficient, as well as in homes and apartment complexes), provide purchase support through subsidies and tax incentives, and promote public purchase by the government.



Portable Hydrogen Cartridge (Prototype)



3.5 million
BEVs/year by 2030

Lexus aiming for 100%BEV
by 2035 globally

4 trillion yen
for BEV investment

Media Briefing on Battery EV Strategies
<https://global.toyota/en/newsroom/corporate/36428993.html>

In addition to BEVs, the IPCC also states that sustainable biofuels, low emissions hydrogen, and derivatives (including synthetic fuels) can support mitigation of CO₂ emissions from land transport. Toyota believes that these technologies have the potential to expand the options for achieving carbon neutrality at an early stage and is working with various companies and local governments for their expansion.

We are studying the possibility of biofuels and synthetic fuels as a measure to reduce emissions from the in-use fleet of vehicles. To advance the technology, we are testing vehicles that use biofuels and synthetic fuels derived from biomass in races. However, in addition to technical and price challenges, the commercialization of these fuels requires public and private sectors to work together to raise awareness, establish a supply chain, and develop a system to evaluate CO₂ reduction effects. To accelerate these discussions, in Japan, we approached the Ministry of Economy, Trade and Industry (METI) to establish a "Public-Private Council for the Promotion of the Introduction of Synthetic Fuel (e-fuel)" and are now participating in the discussions after it was established in September.

Regarding hydrogen, we are selling our FCEV, MIRAI, and are also developing a hydrogen engine vehicle. Toyota is the world leader in Hydrogen Fuel Cell technology and in December 2020, we announced our second generation MIRAI. Including our first generation, we have sold more than 20,000 MIRAI globally (as of Sept. 2022). We also believe that fuel cell systems are effective for commercial vehicles, which require sufficient cruising range, payload capacity, and fuel supply in a short period of time, and we are working with various companies toward the early commercialization of FC commercial vehicles. In Japan, we are also participating in discussions at the "Mobility Hydrogen Public-Private Conference" newly established by METI.

Toyota is accelerating the development of hydrogen engines in the harsh environment of motorsports. We are working to expand the options for "producing", "transporting" and "using" hydrogen, such as by powering our hydrogen engine vehicles with hydrogen derived from sewage biogas in Fukuoka City and green hydrogen produced in Yamanashi Prefecture while conducting demonstrations to improve the efficiency of hydrogen transportation. With each race, the number of companies, municipalities, and other organizations that share our enthusiasm and actions are increasing, and discussions toward the realization of a hydrogen society are steadily progressing.

Regarding hydrogen refueling infrastructure, Toyota was one of the member companies to establish Japan H2 Mobility, LLC (JHyM) in 2018, and has been supporting the successful strategic deployment of hydrogen stations in Japan.



Toyota's Stance on a Carbon Tax and Carbon Emissions Trading

Toyota believes that CO₂ should be reduced by technological development and innovation. We support a system that is in line with each regional circumstance and promotes technological development/innovation and is fair and equitable, effective, and feasible. We hope that our position is reflected in the Japanese government's ongoing discussions on carbon pricing.

Toyota's Stance on the strengthening of Greenhouse Gas Regulations

Toyota believes it is important to reduce greenhouse gas emissions as soon as possible since these gases are long-lived and therefore accumulate in the atmosphere over long periods of time. Early action is necessary. We support regulations that are predictable, technology neutral, and that allow us to provide safe and affordable vehicles to our customers. We support regulations that are integrated in an economy-wide, comprehensive energy and industrial policy. Further, we support deregulations and policies that promote the entire spectrum of measures to reduce barriers to success such as infrastructure development, consumer purchase incentives, and other complimentary policy measures.

Toyota's Stance on Individual Policies

This section describes Toyota's stance on individual policies related to automobiles in Japan, the US, and Europe.

Japan

The Sixth Strategic Energy Plan(Cabinet Decision in Oct. 2021)

- Toyota supports the Japanese government's new 2030 energy mix plan, where renewable energy is to be the country's main power source in 2030. The Japanese government plans to double the amount of renewable energy in the next ten years, which is an ambitious goal. Toyota is asking the Japanese government to take specific actions towards a steady increase of renewable energy. (ex. Make a viable action plan, publicly share information on necessary investments/costs, etc.)

Growth-Oriented Carbon Pricing Concept

- Toyota believes the "Growth-Oriented Carbon Pricing Concept" is an important policy for achieving carbon neutrality, as it promotes growth while reducing emissions. Toyota would like to contribute to the policy discussion through our industry associations.

Phased Development and Deployment of GX League

- Toyota endorses the GX League and has announced its participation. We will continue to contribute to emission reductions and take on the challenge of GX, while learning from other participating companies, government, and academia.
- * In 2022, METI established the GX League (GX: green transformation), a forum for cooperation between a group of companies and the government, universities, and academic institutions in order to meet greenhouse gas reduction targets and increase industrial competitiveness by using Japan's goal of carbon neutrality by 2050 as an opportunity for economic growth.

Partial Revision of the "Act on the Rationalization etc. of Energy Use" and the "Act on the Promotion of Use of Non-fossil Energy Sources and Effective Use of Fossil Energy Materials by Energy Suppliers"

- The Japanese government has partially amended the above laws and is planning to implement them in April 2023. The first law newly calls for the rational use of all energy sources, including non-fossil energy, and the latter is newly including hydrogen, ammonia, etc. as non-fossil energy sources under the law. We believe that the appropriate implementation of these legislative amendments will advance our efforts to achieve carbon neutrality, and we will contribute to their steady implementation.



USA

GHG, CAFE, and ZEV Emissions Standards for Passenger Vehicles

- In December 2021, EPA* finalized greenhouse gas (GHG) emissions standards for passenger cars and light trucks for Model Years 2023-2026. In April 2022, NHTSA* finalized Corporate Average Fuel Economy (CAFE) standards for Model Years 2024-2026. And in August 2022, CARB* approved its Advanced Clean Cars2 (ACC2) regulation to reduce tailpipe emissions and move toward 100% Zero-Emission Vehicle (ZEV) sales by Model Year 2035.
Toyota supports the overall direction embodied by these actions and our goal is to continue to comply with all laws and regulations. In August 2022, Toyota Motor North America (TMNA) issued a statement supporting California's regulatory authority (see box to the right).
Toyota is also providing information to EPA and NHTSA as part of the public regulatory process concerning future GHG and CAFE standards currently under development that will reportedly extend into the early 2030s.
- Ultimately, regulatory compliance will require more than great electrified vehicles. The US must develop a clean and reliable supply of critical minerals and processing for batteries. Significant charging and hydrogen refueling infrastructure needs to exist. Consumer demand for electrified vehicles across all vehicle segments and consumer income levels must be robust. TMNA is providing input to federal and state governments on policies to further these objectives.
- TMNA is pursuing multiple electrified vehicle technologies in parallel because we believe the fastest way to achieve carbon neutrality is to offer a diverse array of "carbon reducing" options in the short-term and "carbon neutral" options over the medium- to long-term. In the US, we currently offer products using all major electrification approaches –hybrid electric, plug-in hybrid electric, battery electric and fuel cell electric.

** EPA means Environmental Protection Agency; NHTSA means National Highway Traffic Safety Administration; CARB means California Air Resources Board.

Toyota's Statement on Its Alignment with CARB and the State of California on GHG Reduction and Carbon Neutrality Goals

Toyota continues to share the vision of GHG reduction and carbon neutrality goals with CARB and the State. In our recent communication, we acknowledged CARB's leadership in climate policies and its authority to set vehicle emissions standards under the Clean Air Act. We are also excited about our efforts to extend zero-emissions activities beyond our core vehicle business with our "Clean Ports, Clean Corridors and Clean Communities" initiative, and we're eager to explore the State's engagement with these efforts.

California Advanced Clean Fleet (ACF) and At-Berth Vessel Regulations

- CARB is currently developing regulations to require electrification of medium- and heavy-duty fleet trucks in the state, as well as alternative shore power for certain vessels docked in California ports. Toyota owns and operates trucks in our logistics operations and uses California ports for some vehicle imports. Toyota is providing information to CARB as part of the public regulatory process. Given the duty cycles, daily driving routes, and need for faster refueling, hydrogen fuel cells are a promising technology for electrifying the heavy-duty fleet and for providing zero-emission shore power for at-berth vessels.

Consumer Tax Credits for Electrified Vehicles

- Consistent with our drive to reduce carbon, Toyota supported tax incentives to make electric vehicles more affordable. We believe providing purchase incentives to customers will help accelerate America's transition to an electric future. TMNA, along with other major OEMs, sent a letter to the US Congress expressing our support (available at the link below).

Toyota Statement on Customer Tax Credits for Battery Electric Vehicles

<https://pressroom.toyota.com/toyota-statement-on-customer-tax-credits-for-battery-electric-vehicles/>

Reducing GHGs in Our Operations

- While some states and regions within the US have adopted CO₂ cap-and-trade regulations, TMNA's major US manufacturing sites are not currently subject to those regulations. Nonetheless, under our Toyota Environmental Challenge 2050, we are aiming to achieve carbon neutrality in our US operations by 2030 for purchased power and by 2035 for on-site combustion. We are making progress towards these goals through energy efficiency and demand reduction, as well as by building renewable energy generation. Two examples are shown to the right with additional details available in our North American Environmental Report.

Toyota North American Environmental Report

https://www.toyota.com/content/dam/tusa/environmentreport/downloads/2021_Toyota_NAER.pdf

Reducing GHGs in Our Supply Chain

- TMNA has developed goals to reduce our supply chain emissions, including suppliers, logistics and dealerships. In 2022, we published our updated Green Supplier Requirements. As part of these requirements, suppliers are joining us in our efforts to reduce CO₂ emissions across the vehicle life cycle and are expected to commit to an annual 3% CO₂ reduction target. The Toyota and Lexus brands work with their dealerships through the Dealer Environmental Excellence Program (Deep) and provide guidance on sustainable strategies during construction and renovation projects to achieve Leadership in Energy and Environmental Design (LEED®) certification.



Black Rock Wind Farm Grant and Mineral Counties, WV



TMNA Headquarters Solar Array Plano, TX

Europe

EU Emissions Trading System (EU ETS) for building and road transport

- We recognize that the European Union (EU) has been utilizing the EU ETS for many years, through a process of trial and error, in its efforts to reduce emissions from large emission sources. Considering these experiences and the current economic and environmental situation, the EU has decided that road transport will be newly included in the scope of the EU ETS. The Association of the European Automobile Manufacturers (ACEA) issued a release in June welcoming this decision.
- While we recognize that there are still some points that need to be discussed, such as the burden to be borne by users, we would like to contribute to the policy discussion through ACEA so that the system will be desirable for many stakeholders.

EU's 2035 zero emissions CO₂ target for cars and vans

- Toyota has been reducing CO₂ emissions since 1995 - establishing the company as a leader for vehicle CO₂ performance in Europe. We will fully take up the challenge to deliver the 100% vehicle CO₂ emissions reduction by 2035 in line with new EU target. Now that this target has been set by the EU, it is also necessary that this is complimented with the acceleration of key enabling conditions necessary to achieve this goal. This includes the development of European alternative zero emission vehicle infrastructure (electric re-charging and hydrogen re-fuelling points), as well as other enabling conditions such as clean renewable energy, access to relevant raw materials, and improving the affordability of products.
- Together with other automotive companies, we consider the EU Commission's 2026 review period as an important milestone to assess if sufficient progress is being made. Continued collaboration between Toyota and European regulators will be important to jointly realize greater zero emissions transport as well as promotion for long term manufacturing, economic competitiveness and growth.

UK's ZEV Mandate Development

- We are not in a position to provide a detailed comment as this is still in a consultation phase. We will continue to approach any discussion with the UK Government based on constructive dialogue. Toyota shares the UK Government's ambition to make progress towards zero emissions. We have consistently said we continue to see a role for many different technologies in the transition to zero emissions based on the principle of 'mobility for all' and 'carbon as the enemy'. We have a clear roadmap for achieving zero emission vehicles. For UK, we will be ready to sell 100% of our vehicles with zero emissions by 2035 which is the Government's target (see above comments regarding enabling conditions).



Lexus Electrified Sport

Our Climate-Related Public Policy Activities

Based on our climate-related policy positions, Toyota has engaged in climate policy advocacy activities including those through industry associations. We have listed a few examples in major regions from 2022.

Japan • Industry Association

Round-Table Meeting between Prime Minister Kishida and JAMA

- In June, Prime Minister Kishida held a round-table meeting with Mr. Toyoda, Chairman of the Japan Automobile Manufacturers Association (JAMA), and Mr. Arima, Chairman of the Japan Auto Parts Industries Association (JAPIA), where we had the opportunity to exchange views on the automotive industry's efforts toward carbon neutrality. In the meeting, we requested that the government support the decarbonization of the entire supply chain, and that the public and private sectors work closely together to make the necessary investments in the automotive sector to achieve carbon neutrality.
- Prior to the meeting, we introduced Toyota's manufacturing plant where we explained the challenges of mixed model production to achieve a full lineup of electric vehicles, the latest electrification technologies, and other future initiatives aimed at growth.



Photo: Noriaki Mitsuhashi/N-RAK PHOTO AGENCY

Carbon Neutral / Supply Chain / Diverse Options

Japan • Industry Association

Keidanren Committee on Mobility

- The Keidanren (Japan Business Federation) Committee on Mobility held its inaugural session in September. Together with Mr. Tokura, Chairman of Keidanren, and Mr. Arima, Chairman of JAPIA, Mr. Toyoda, Chairman of JAMA chaired the committee.
- The Committee will focus on the movement of people and goods and discuss how mobility-related industries can solve social issues and realize future growth. In particular, carbon neutrality is an issue that requires discussion beyond the automotive industry, and we plan to deepen the discussion together with the more than 200 companies participating in the committee, as well as engage in dialogue with the government and administrative agencies.



Carbon Neutral

Japan • Industry Association

Carbon Neutral / Diverse Options

Roundtable Meeting on Mobility

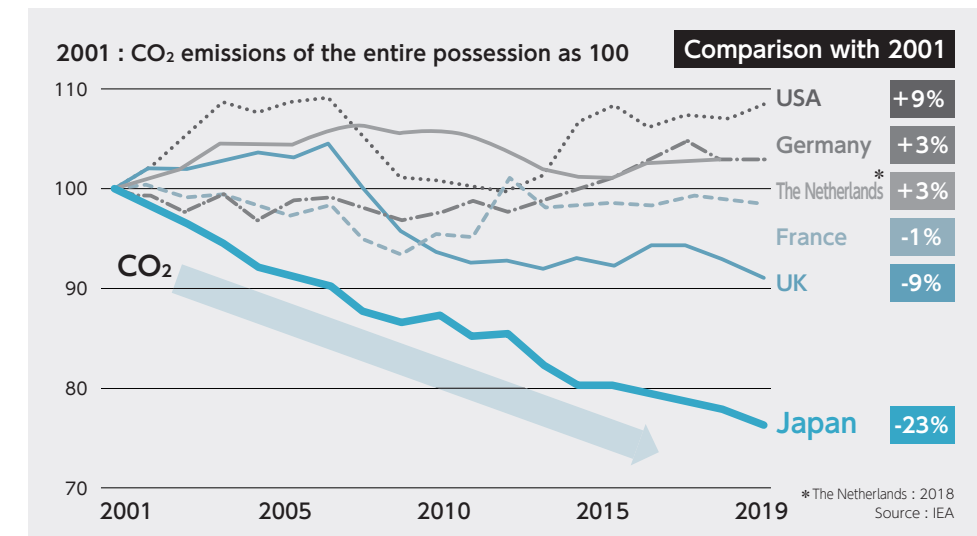
- In November, the Meeting on Mobility was held at the Prime Minister's Office. The chairmen of Keidanren's Committee on Mobility (Keidanren Chairman Masakazu Tokura, JAMA Chairman Akio Toyoda, and JAPIA Chairman Koji Arima) attended the meeting.

Mr. Toyoda made the following comments regarding carbon neutrality.

— As countries make efforts in the pursuit of carbon neutrality, Japan's auto industry has led the world by cutting CO₂ emissions by 23% over the past 20 years. We achieved this by drawing on our strengths across the full lineup—from mini-vehicles to motorcycles and heavy-duty vehicles—and working to develop fuel-efficient technologies and expand our pioneering range of electrified vehicles.

— Given the harsh realities of greening the country's energy supply, Japan needs to follow its own path to decarbonize road transport that fully leverages our strengths in hybrids, mini-vehicles, motorcycles, and hydrogen, rather than going all in on BEVs.

The committee also requested for an optimal roadmap for the Green Transformation in Japan and Asia with energy and industrial policies working in tandem.

International comparison of CO₂ emissions by automobiles

The reduction of CO₂ emissions by 23% is significantly larger than other countries. The Japanese automotive industry has an advantage in having led the reduction efforts.

USA • TOYOTA

/ Energy Transition and Zero Carbon Technologies

“Washington Fly-In” by Toyota Executives in the US

- In April 2022, over 85 TMNA senior executives met with more than 100 members of the U.S. Congress in Washington, D.C., in person, to advocate for new clean vehicle (EV) credits that are applied equally and fairly across all manufacturers. Additionally, TMNA advocated for federal program funding for Department of Energy and Department of Transportation to advance electrification, including additional hydrogen and charging infrastructure grants, along with various green finance tax credits. We also shared with House and Senate members and senior staff our portfolio approach towards electrification in North America, which includes an “all of the above” technology and energy strategy to bolster zero emission powertrain commercialization and reduce carbon emissions in surface transportation.



USA • TOYOTA

/ Energy Transition and Zero Carbon Technologies / Hydrogen

Hydrogen Fuel Cell Demonstration in the Northeast US

- Over a 15-day stretch in April and May 2022, TMNA held a “Roadshow” in the Northeast US to demonstrate fuel cell technology using the Toyota-Kenworth “Ocean” Class 8 Fuel Cell truck and the new Toyota Mirai. The Roadshow included nine stops along the east coast, as well as ride-and-drives and demonstrations for federal and state elected officials, port executives, regulators, NGOs, and utilities.



Europe • TOYOTA

Hydrogen Mobility and Infrastructure Promotion Event

- To promote hydrogen mobility in the passenger car/van market, Toyota Motor Europe (TME) collaborated with JAMA, BMW, Hyundai, Stellantis, energy companies, and hydrogen promoting organizations to hold a two-day event to promote fuel cell vehicles to the EU Council, European Parliament, and French government officials. The two-day event was attended by 31 government and parliament officials.
- We explained the prospects for FCEVs in the passenger car and van markets, the promotion of hydrogen use through infrastructure design with both passenger and commercial markets in mind, and the benefits of reduced facility costs. In addition, the participants test drove fuel cell vehicles from various OEMs and experienced hydrogen refueling.



/ Energy Transition and Zero Carbon Technologies / Hydrogen

Europe • TOYOTA

Hydrogen Engines Car's First Run in Europe

- Toyota put its GR Yaris H2—a special hydrogen-engine version of the Toyota GR Yaris—through its paces in a demonstration run during the ninth round of the World Rally Championship in Ypres. The rally was the first time for Toyota to drive an under-development hydrogen-engine vehicle on public roads outside Japan. Behind the wheel of the GR Yaris H2 was Toyota President Akio Toyoda, a.k.a. “Morizo”. Joining him as co-driver was former Finnish driver and four-time WRC champion Juha Kankkunen, who once won a world title with Toyota.
- The demonstration in Europe, which is the birthplace of automobile culture, became a hot topic among the automotive media not only in Japan but also overseas. In an interview after the race, “Morizo” mentioned the need of fueling infrastructure. Toyota will continue such activities to realize a hydrogen society.



/ Energy Transition and Zero Carbon Technologies / Hydrogen

Europe • TOYOTA

/ Carbon Neutral

2nd edition of Sustainability Forum in Europe

- On 14 October, TME hosted its 2nd Sustainability Forum with around 45 European stakeholders' attendance from NGOs, Academia, Industry Associations, Companies and the European Commission. TME Executives shared and discussed TME sustainability actions from 3 perspectives; our sustainability heritage, achieving Carbon Neutrality by providing sustainable and practical solutions, and becoming the Best Corporate Citizen in Town through putting people at the center of what we do.
- TME's sustainability ambition and transparency were well-received by the participants and triggered many questions, covering our electrification strategy, how to reduce CO₂ emission from Units In Operation (UIO), community engagement and workforce transformation. Emerging interest areas such as human rights in supply chain were also shared by the participants for future discussion topics.



Europe • TOYOTA

/ Energy Transition and Zero Carbon Technologies / Hydrogen

Development Starts on Fuel Cell Hilux Prototype in the UK

- Toyota will commence development work for prototype of Fuel Cell Hilux. Toyota, together with UK engineering partners (inc. Ricardo, ETL, D2H, Thatcham Research), will adapt the second-generation fuel cell components used in MIRAI for the conversion of a Hilux into a fuel cell vehicle. This development project has been awarded funding from the British Government (more than £5.5m/ 50% of total project costs) through its Advanced Propulsion Centre program.
- Toyota Motor Manufacturing UK (TMUK) will lead the project team, and a team from TME R&D will provide expert technical support. The initial prototype vehicles will be produced at the TMUK Burnaston site during 2023. Following performance results, opportunity for small series production will be considered.
- The development of a more vibrant hydrogen transport sector will be a significant building block in our ambition for Carbon Neutrality. And this fuel cell project is an exciting opportunity to investigate the potential of a zero emissions solution in an important market segment in Europe.



In this year's disclosure, we have newly listed a few examples from China and Asia.

China • TOYOTA

Explaining our electrification strategies at the China International Import Expo (CIIE2022)

- At the CIIE held in November, Toyota explained its basic stance of contributing to China's decarbonization policy by providing a full line-up of electrified vehicles, and that we aim to achieve a society where decarbonized electricity and hydrogen are widely spread and utilized, to the central and local governments.

Energy Transition and Zero Carbon Technologies / Diverse Options / Hydrogen



China • TOYOTA

Introduction of FCEVs at the 2022 Beijing Winter Olympics and subsequent introduction to the city of Beijing

- During the Beijing Winter Olympics, we worked with the Beijing government and the Beijing Olympic Organizing Committee to promote and introduce FCEVs. Specifically, we provided 140 MIRAI and 107 FC Coasters, as well as 212 FC systems to local bus manufacturers. The FC vehicles we provided traveled approximately 400,000 kilometers, making a significant contribution to the decarbonization of the Beijing Winter Olympics. After the Olympics, as an Olympic Legacy, we have been working with local governments to raise awareness of FC technology and its benefits, and in June, with the cooperation of the Beijing government, operations of FC coaster shuttle buses in the Beijing Central Business District have started.

Energy Transition and Zero Carbon Technologies / Hydrogen



China • TOYOTA

Developing Fuel Cell related standards with the Chinese authority

- Together with the Chinese authorities, we have contributed to the development of standards for hydrogen tanks and the publication of ISO standards for measuring the energy consumption and driving range of FCEVs.

Energy Transition and Zero Carbon Technologies / Hydrogen



ISO 23828:2022
Fuel cell road vehicles — Energy consumption measurement — Vehicles fuelled with compressed hydrogen

Abstract

This document specifies the procedures for measuring the energy consumption and driving range of fuel cell passenger cars and light-duty trucks that use compressed hydrogen.

General information

Status: Published Publication date: 2022-06
Edition: 1 Number of pages: 37
Technical Committee: ISO/TC 22/SC 37 Electrically propelled vehicles
ICS: 43.020 Electric road vehicles

Thailand • TOYOTA

CP and Toyota to join forces to study path toward carbon neutrality in Thailand

- In December 2022, Toyota announced that it will explore collaboration with Charoen Pokphand Group (CP) toward carbon neutrality in Thailand. CP expands its business in Thailand to a wide range of fields, including retail, distribution, industrial product, and agriculture & livestock. Both companies are willing to welcome any partners who share the same view toward carbon neutrality since carbon neutrality should be tackled by all people and industries. Specifically, CP and Toyota will explore social implementation in the following three areas. With these actions being linked with each other, the two companies will proceed with what can be done now, to consistently reduce CO₂ emissions throughout the entire process of producing, transporting, and using energy, toward accelerating carbon neutrality.
 1. Production of hydrogen using biogas derived from farm wastes
 2. Introduction of fuel cell delivery trucks into CP's fleet, which is to use the above-mentioned hydrogen (provide a variety of solutions such as BEV and FCEV, considering travel distance and load weight)
 3. Efficient logistics by proposing optimized delivery routes through connectivity technology

[Energy Transition and Zero Carbon Technologies](#) / [Hydrogen](#)


Thailand • TOYOTA

Hydrogen engine vehicle runs in a race for the first time outside Japan

- At the Chang International Circuit in Thailand, the ORC ROOKIE GR Corolla H2 concept, a hydrogen engine vehicle, and the ORC ROOKIE GR86 CNF Concept, a carbon-neutral fuel vehicle, participated in the endurance race for the first time outside of Japan. ROOKIE Racing and Toyota's participation in the Buriram race showcases the region's new technologies of hydrogen engines and synthetic fuel vehicles. Furthermore, it solidifies Toyota's commitment to further expand and accelerate the development of carbon-neutral mobility options in Asia, through motorsports.

[Energy Transition and Zero Carbon Technologies](#) / [Hydrogen](#)


Thailand • TOYOTA

Launching Thailand's first hydrogen fueling station

- Towards renewable energy innovation in Thailand, PTT (a Thai state-owned oil and gas company) and Toyota jointly introduced Thailand's first hydrogen refueling station in Bang Lamung district, Chonburi province. Using the hydrogen from this station, Toyota will provide its FCEV, MIRAI, for a limousine service between U-Tapao International Airport and Pattaya, Chonburi province. Technical data gathered from this service will be used to improve vehicle performance, which will lead to achieving the country's carbon neutrality and net zero goals.

[Energy Transition and Zero Carbon Technologies](#) / [Hydrogen](#)


Review of Toyota's Industry Associations

In last year's disclosure, we reviewed the activities and stances of the following four associations to determine whether they are consistent with Toyota's stance: Japan Automobile Manufacturers Association (JAMA), Japan Business Federation (Keidanren), Alliance for Automotive Innovation (Auto Innovators), and European Automobile Manufacturers' Association (ACEA).

This year, we increased the number of associations reviewed, and we also reviewed each organization's activities with the goals of the Paris Agreement, rather than Toyota's stance. Specifically, we reviewed whether the major advocacies and activities made by each organization in 2022 were consistent with the scientific findings of the IPCC relating to the Paris Agreement.

Associations that we Reviewed

In addition to the four associations reviewed last year, we reviewed the following two associations: Society of Motor Manufacturers and Traders and the World Business Council for Sustainable Development.

We chose these industry associations because they are

- ① Involved in climate public policies
- ② Automobile related or promote the spread of automobile infrastructure
- ③ Our executives are participating in the association's activities

Methodology

We reviewed the major advocacies and activities posted on each organization's website, etc., with the contents of the IPCC's Working Group III, Sixth Assessment Report.

Specifically, we reviewed the organizations' stances on carbon neutrality, renewable energy, energy transition and zero carbon technologies, carbon pricing, and strengthening GHG regulations.

When an association has not stated a position on certain climate related policy positions, we did not automatically consider them a misalignment.

Strategy when an association is not aligned with the Paris Agreement

In cases where an association is conducting activities that are inconsistent with the goals of the Paris Agreement, we will clarify the misalignment and encourage the association to review its stance through constructive dialogues.



TOYOTA bZ Compact SUV Concept

Japan Automobile Manufacturers Association (JAMA)

Objective	To promote the sound development of the Japanese automobile industry and contribute to social and economic welfare
Membership of board/ executive committee	<p>Akio Toyoda : Chairman (President, Toyota Motor Corporation)</p> <p>Koji Kobayashi : Executive Director (Banto, Toyota Motor Corporation)</p> <p>Masahide Yasuda : Auditor (Audit & Supervisory Board Member, Toyota Motor Corporation)</p>
Stance on Climate Related Policies	<p>Carbon Neutrality</p> <ul style="list-style-type: none"> JAMA is fully committed to the challenge toward carbon neutrality by 2050 <p>Renewable Energy</p> <ul style="list-style-type: none"> JAMA is advocating for a renewable energy expansion plan with competing power, and a stable supply of low-cost renewable energy and hydrogen in Japan <p>⇒ The IPCC states that transitioning to very low or zero-carbon energy sources, such as renewables or fossil fuels with CCS are effective measures to reduce GHG emissions. We believe JAMA's stance is consistent with this scientific finding</p> <p>Energy transition and zero carbon technologies (Automobile Related)</p> <ul style="list-style-type: none"> JAMA is requesting the Japanese government to take measures to promote the spread of electric vehicles, promote the development of charging and filling infrastructure, and ease related regulations. JAMA is also investigating and studying the possibility of carbon-neutral fuels In its public comments regarding the clean vehicle tax credits as part of the energy tax benefits included in the Inflation Reduction ACT (IRA), JAMA stated that more consumers should be able to receive incentives to purchase electric vehicles In Japan, JAMA has also made recommendations to ensure the promotion of decarbonization, including the expansion and extension of the tax incentives for low-emission cars and hydrogen refueling infrastructures <p>⇒ In addition to BEVs, the IPCC states that sustainable biofuels, low emissions hydrogen, and derivatives (including synthetic fuels) can support mitigation of CO₂ emissions. We believe JAMA's stance is consistent with this scientific finding</p> <p>Carbon Pricing</p> <ul style="list-style-type: none"> JAMA believes that a carbon pricing system should be designed to promote growth while ensuring that companies do not face a disadvantage in international competition <p>⇒ The IPCC states that economic instruments will support emissions reductions. We believe JAMA's stance is consistent with this scientific finding</p> <p>Strengthening GHG Regulations</p> <ul style="list-style-type: none"> JAMA supports fuel economy regulations that are based on technological neutrality and vehicle type that promote technological development for businesses and behavior change for consumers <p>⇒ The IPCC states that regulatory and economic instruments support emissions reductions. We believe JAMA's stance is consistent with this scientific finding</p> <p>⇒ JAMA also states that regulations should not limit technology options, but as mentioned above, the IPCC has identified sustainable biofuels, low emissions hydrogen, and derivatives (including synthetic fuels) as effective means of decarbonization, and therefore, we believe JAMA's stance of pursuing a multipath strategy is not contrary to this scientific finding</p>



Result of our Review

Toyota did not find any topics among the five which are not in line with the scientific findings presented by the IPCC.

Toyota has contributed in the making of JAMA's stances and will continue to participate in discussions to achieve carbon neutrality in 2050.

Japan Business Federation (Keidanren)

Objective	Contribute to the self-sustained development of the Japanese economy and the improvement of the lives of citizens, by drawing out the dynamism of corporations as well as that of the individuals and communities that support them
Membership of board/ executive committee	Shigeru Hayakawa : Vice Chair* of the Board of Councilors (Vice Chairman of the Board of Directors, Toyota Motor Corporation) * Board of Councilors is an advisory panel, not a decision-making body
Stance on Climate Related Policies	<p>Carbon Neutrality</p> <ul style="list-style-type: none"> Keidanren states the need to promote Green Transformation (GX) to achieve carbon neutrality in 2050 <p>Renewable Energy</p> <ul style="list-style-type: none"> Keidanren calls for the urgent need to secure zero-emission power sources and for renewable energy to become the main power source At the same time, Keidanren also mentions the need for next-generation electricity networks in anticipation of the mass introduction of renewable energy <p>⇒ The IPCC states that transitioning to very low or zero-carbon energy sources, such as renewables or fossil fuels with CCS are effective measures to reduce GHG emissions. We believe Keidanren's stance is consistent with this scientific finding</p> <p>Energy transition and zero carbon technologies (Automobile Related)</p> <ul style="list-style-type: none"> Keidanren has newly established the Committee on Mobility which will discuss the decarbonization of mobility Keidanren states the need for R&D and creating an enabling environment for electrification and the utilization of existing internal combustion engines in a carbon neutral way. They also mention the need to develop EV and hydrogen fueling stations; promote R&D and develop supply chains for using H2, e-fuels, and biofuels in ICE <p>⇒ In addition to BEVs, the IPCC states that sustainable biofuels, low emissions hydrogen, and derivatives (including synthetic fuels) can support mitigation of CO₂ emissions. We believe Keidanren's stance is consistent with this scientific finding</p> <p>Carbon Pricing</p> <ul style="list-style-type: none"> Keidanren is actively participating in discussions on carbon pricing that contributes to growth. They have stated that a cap & trade system could be a viable option, and discussions should be started <p>⇒ The IPCC states that economic instruments will support emissions reductions. We believe Keidanren's stance is consistent with this scientific finding</p> <p>Strengthening GHG Regulations</p> <ul style="list-style-type: none"> To reduce emissions, Keidanren states it is important to consider a mix of policies such as the proactive "Carbon Neutrality Action Plan" and the GX League, regulatory measures such as the Act on the Rationalization etc. of Energy Use, and economic instruments such as carbon pricing According to the Fiscal 2021 results of the Carbon Neutrality Action Plan announced by Keidanren in November, the total CO₂ emissions from all sectors (industrial, energy conversion, transportation, etc.) in Fiscal 2021 were 17.7% lower than in Fiscal 2013, indicating that results are steadily improving <p>⇒ The IPCC states that regulatory and economic instruments support emissions reductions. We believe Keidanren's stance is consistent with this scientific finding</p>

Keidanren Policy & Action

Result of our Review

Toyota did not find any topics among the five which are not in line with the scientific findings presented by the IPCC.

Toyota has contributed in the making of Keidanren's stances and will continue to participate in discussions to achieve carbon neutrality in 2050.

Alliance for Automotive Innovation (Auto Innovators)

Objective	Auto Innovators works with policymakers to support cleaner, safer and smarter personal transportation that helps transform the U.S. economy, and sustain American ingenuity and freedom of movement
Membership of board/ executive committee	Chris Reynolds : Member of the Board of Directors (Chief Administrative Officer, Toyota Motor North America)
Stance on Climate Related Policies	<p>Carbon Neutrality</p> <ul style="list-style-type: none">• Auto Innovators aims to achieve net-zero carbon transportation future <p>Renewable Energy</p> <ul style="list-style-type: none">• Auto Innovators has noted the need for states to move to more renewable energy sources⇒ The IPCC states that transitioning to very low or zero-carbon energy sources, such as renewables or fossil fuels with CCS, are effective measures to reduce GHG emissions. We believe Auto Innovator's stance is consistent with this scientific finding <p>Energy transition and zero carbon technologies (Automobile Related)</p> <ul style="list-style-type: none">• Auto Innovators recognizes the need for electric vehicles (PHEV, BEV, FCEV) to enable the transition to a low-carbon transportation future, and that a suite of complimentary policies is needed at both the state and federal levels –such as purchase incentives, expanded charging and hydrogen refueling infrastructure -to promote their widespread use• For example, Auto Innovators, in response to the Inflation Reduction Act (IRA), praises the investments on the supply side stating that it will lead to a globally competitive battery manufacturing platform, while also stating that more consumers should be able to receive purchase incentives. Regarding the California ZEV Mandate, Auto Innovators is requesting concrete actions for its implementation such as securing critical minerals, establishing a battery supply chain, and improving the charging environment⇒ In addition to BEVs, the IPCC states that sustainable biofuels, low emissions hydrogen, and derivatives (including synthetic fuels) can support mitigation of CO₂ emissions. We believe Auto Innovator's stance is consistent with this scientific finding <p>Carbon Pricing</p> <ul style="list-style-type: none">• Auto Innovators has shown support for regional cap-and-invest programs and has taken the view that revenues from such program should be used for vehicle purchase incentives and other investments that support a robust consumer market⇒ The IPCC states that economic instruments will support emissions reductions. We believe that Auto Innovator's stance is consistent with this scientific finding <p>Strengthening GHG Regulations</p> <ul style="list-style-type: none">• Auto Innovators supports a unified national program that aligns fuel economy (CAFE) and greenhouse gas (GHG) emissions regulations to achieve year-over-year improvements in efficiency. Auto Innovators also recognizes the role California and other states play in US vehicle and fuels policy and regulation and in promotion of Zero Emission Vehicles⇒ The IPCC states that regulatory and economic instruments support emissions reductions. We believe that Auto Innovator's stance is consistent with this scientific finding



Result of our Review

Toyota did not find any topics among the five which are not in line with the scientific findings presented by the IPCC.

Toyota has contributed in the making of Auto Innovator's stances and will continue to participate in discussions to achieve carbon neutrality in 2050.

European Automobile Manufacturers' Association (ACEA)

Objective	To drive Europe's mobility transformation – while at the same time ensuring that the auto industry remains a strong Global and Competitive player
Membership of board/ executive committee	Didier Leroy : Member of the Board of Directors (Chairman of the Board of Management, Toyota Motor Europe)
Stance on Climate Related Policies	<p>Carbon Neutrality</p> <ul style="list-style-type: none"> • ACEA is committed to make mobility climate-neutral by 2050, in line with the objectives of the Paris agreement <p>Renewable Energy</p> <ul style="list-style-type: none"> • ACEA states that renewable energy are needed to move away from fossil fuels and energy for road transportation ⇒ The IPCC states that transitioning to very low or zero-carbon energy sources, such as renewables or fossil fuels with CCS are effective measures to reduce GHG emissions. We believe ACEA's stance is consistent with this scientific finding <p>Energy transition and zero carbon technologies (Automobile Related)</p> <ul style="list-style-type: none"> • ACEA states the need for the electrification of vehicles and the roll-out of an EU-wide charging and refueling infrastructure • For example, when the EU decided to reduce CO₂ emissions from cars and vans by 100% by 2035, ACEA called for concrete actions necessary to achieve this goal, such as securing an abundant amount of renewable energy and raw materials and creating a seamless charging infrastructure network ⇒ In addition to BEVs, the IPCC states that sustainable biofuels, low emissions hydrogen, and derivatives (including synthetic fuels) can support mitigation of CO₂ emissions. We consider ACEA's stance is consistent with this scientific finding <p>Carbon Pricing</p> <ul style="list-style-type: none"> • ACEA believes that carbon pricing schemes are effective policies that support and enable Europe's transition to carbon neutrality and has welcomed the inclusion of road transport in the new EU ETS ⇒ The IPCC states that economic instruments will support emissions reductions. We believe that ACEA's stance is consistent with this scientific finding <p>Strengthening GHG Regulations</p> <ul style="list-style-type: none"> • ACEA calls for and has suggested ways to quickly complete the Euro 7 ⇒ The IPCC states that regulatory and economic instruments support emissions reductions. We believe ACEA's stance is consistent with this scientific finding



Result of our Review

Toyota did not find any topics among the five which are not in line with the scientific findings presented by the IPCC.

Toyota has contributed in the making of ACEA's stances and will continue to participate in discussions to achieve carbon neutrality in 2050.

Society of Motor Manufacturers and Traders (SMMT)

Objective	The Society of Motor Manufacturers and Traders (SMMT) exists to support and promote the interests of the UK automotive industry at home and abroad
Membership of board/ executive committee	Agustin Martin: Member of Executive Board (President & Managing Director of Toyota (GB))
Stance on Climate Related Policies	<p>Carbon Neutrality</p> <ul style="list-style-type: none"> SMMT has stated its commitment to decarbonizing and is up for the challenge of Net Zero <hr/> <p>Renewable Energy</p> <ul style="list-style-type: none"> SMMT has stated the need for a secure supply of renewable, low-carbon energy in order to meet the highly ambitious zero emission targets ⇒ The IPCC states that transitioning to very low or zero-carbon energy sources, such as renewables or fossil fuels with CCS are effective measures to reduce GHG emissions. We believe SMMT's stance is consistent with this scientific finding <hr/> <p>Energy transition and zero carbon technologies (Automobile Related)</p> <ul style="list-style-type: none"> SMMT has stated that they are up for the challenge of a zero-emission new car and van market by 2035. In order to achieve this challenge, SMMT has made proposals for the widespread use of charging infrastructure, such as a national plan on charging infrastructure ⇒ The IPCC states that Electric vehicles powered by low emissions electricity offer the largest decarbonization potential for land-based transport. We believe SMMT's stance is consistent with this scientific finding <hr/> <p>Carbon Pricing</p> <ul style="list-style-type: none"> SMMT members have been participating in the EU ETS since its inception, and after the UK left the EU, SMMT has called for the UK and EU ETS schemes to be linked to better ensure a level playing field on the price of carbon ⇒ The IPCC states that economic instruments will support emissions reductions. We believe that SMMT's stance is consistent with this scientific finding <hr/> <p>Strengthening GHG Regulations</p> <ul style="list-style-type: none"> SMMT has welcomed the UK Government's Ten Point Plan and is up for the challenge of Net Zero. SMMT has also stated that regulations must encourage consumers to purchase, and that market transformation is proven to work fastest when mandates are matched with incentives ⇒ The IPCC states that regulatory and economic instruments support emissions reductions. We believe that SMMT's stance is consistent with this scientific finding



Result of our Review

Toyota did not find any topics among the five which are not in line with the scientific findings presented by the IPCC.

Toyota has contributed in the making of SMMT's stances and will continue to participate in discussions to achieve carbon neutrality in 2050.

World Business Council for Sustainable Development (WBCSD)

Objective	To accelerate the transition to a sustainable world by making more sustainable businesses more successful
Membership of board/ executive committee	Shigeru Hayakawa: Executive Committee (Vice Chairman of the Board of Directors, Toyota Motor Corporation)
Stance on Climate Related Policies	<p>Carbon Neutrality</p> <ul style="list-style-type: none">• WBCSD aims to achieve Net Zero by 2050 <p>Renewable Energy</p> <ul style="list-style-type: none">• WBCSD states that a sustainable energy system will need to provide reliable and affordable net-zero carbon energy for all and that the speed at which the energy system will be decarbonized will critically influence our ability to limit the rise in global temperatures to 1.5° C⇒ The IPCC states that transitioning to very low or zero-carbon energy sources, such as renewables or fossil fuels with CCS are effective measures to reduce GHG emissions. We believe WBCSD's stance is consistent with this scientific finding <p>Energy transition and zero carbon technologies (Automobile Related)</p> <ul style="list-style-type: none">• WBCSD states that electrification of transport and decarbonization of the automotive industry, powered by renewable electricity, is at the center of global greenhouse gas emissions reduction efforts and is convening business leaders across the transport, energy and built environment systems to accelerate the deployment of ZEV and charging infrastructure deployment• For example, in November, WBCSD launched a new initiative with the U.S. and U.K. governments to support businesses and governments in emerging markets to step up efforts to transition ZEVs. The initiative is led by the U.S. and U.K. governments with 17 other nations, including Japan⇒ The IPCC states that Electric vehicles powered by low emissions electricity offer the largest decarbonization potential for land-based transport. We believe WBCSD's stance is consistent with this scientific finding <p>Carbon Pricing</p> <ul style="list-style-type: none">• WBCSD believes that carbon pricing mechanisms are critical to support the urgent efforts required to drive the transition towards a low carbon future and achieving the 1.5° C goal⇒ The IPCC states that economic instruments will support emissions reductions. We believe that WBCSD's stance is consistent with this scientific finding <p>Strengthening GHG Regulations</p> <ul style="list-style-type: none">• WBCSD states that policy changes and stricter environmental regulations are some of the strongest catalysts for a global EV transition⇒ The IPCC states that regulatory and economic instruments support emissions reductions. We believe that WBCSD's stance is consistent with this scientific finding



Result of our Review

Toyota did not find any topics among the five which are not in line with the scientific findings presented by the IPCC.

Toyota has contributed in the making of WBCSD's stances and will continue to participate in discussions to achieve carbon neutrality in 2050.

List of our Industry Association Memberships

In addition to the six associations we reviewed, we have listed some of our associations that are influential in climate change related policies. Toyota will continue to engage with these associations and help the world achieve carbon neutrality.

Global	Hydrogen Council https://hydrogencouncil.com/ja/
Japan	WWF Japan https://www.wwf.or.jp/
	Japan Hydrogen Association https://www.japanh2association.jp/
	The Hydrogen Utilization Study Group in Chubu ※No official Website https://global.toyota/jp/newsroom/corporate/34806052.html
	Fuel Cell Commercialization Conference of Japan https://fccj.jp/
	CHAdEMO Association https://www.chademo.com/ja/
	Automobile Business Association of Japan https://www.aba-j.or.jp/
	Central Japan Economic Federation https://www.chukeiren.or.jp/
	Battery Association for Supply Chain https://www.basc-j.com/en/



Prius/Prius Prime

USA	National Association of Manufacturers https://www.nam.org/
	Information Technology Industry Council https://www.itic.org/
	Center for Climate and Energy Solutions https://www.c2es.org/
	Resources for the Future https://www.rff.org/
	Fuel Cell and Hydrogen Energy Association https://www.fchea.org/
	Electric Drive Transportation Association https://electricdrive.org/
	EPA Green Power Partnership https://www.epa.gov/greenpower
	Renewable Energy Buyers Alliance https://rebuyers.org/
	CALSTART https://calstart.org/
Europe	VELOZ https://www.veloz.org/
	Hydrogen Europe https://www.hydrogeneurope.eu/
	Clean Energy Partnership (Germany) https://cleanenergypartnership.de/en/home-engl
Europe	German Hydrogen and Fuel Cell Association (Germany) https://www.dww-info.de/german-hydrogen-fuel-cell-association/?lang=en
	National Platform Future of Mobility (Germany) https://www.plattform-zukunft-mobilitaet.de/en/
	H2 Mobility (Germany) https://h2.live/h2mobility/
	Plateforme de la Filière Automobile (France) https://pfa-auto.fr/
	France Hydrogène (France) https://www.afhypac.org/
	Society of Motor Manufacturers and Traders (UK) https://www.smmt.co.uk/
	Confederation of British Industry (UK) https://www.cbi.org.uk/
	Zemo Partnership (UK) https://www.zemo.org.uk/
	UKH2 Mobility (UK) http://www.ukh2mobility.co.uk/
Others	Thailand Business Council for Sustainable Development http://www.tei.or.th/tbcsd/
	RE100 Thailand Club https://re100th.org/en/home/