### Case Study: Mazda Motor Corporation Transition Bond / Loan

### **■** Corporate Profile

Industry	Transportation Equipment
Location	Japan
Business	Manufacture of passenger cars, sales of passenger cars and trucks, etc.

### -Alignment with the Four Elements in the Basic Guidelines

### ement 1

- Mazda Motor Corporation (Mazda) is working on the reduction of CO<sub>2</sub> emissions from a life-cycle perspective, aiming for carbon neutrality("CN") throughout the supply chain in 2050. Mazda aims to reduce its CO2 emissions by 69% in 2030 (compared to 2013) on a non-consolidated basis, and to achieve CN at its global plants in 2035.
- Governance: Established the CSR Management Strategy Committee chaired by the President. Mazda also collaborates with group companies on decisions. Further, from FY2015, the Board of Directors has been discussing issues around sustainability.

### ement 2

- It considered the perspectives of stakeholders and their importance to the Mazda Group for the realization of its management policy.
- Mazda raises its Endeavor for CN by 2050 as one of its materialities.

### nent 3

- The company developed its own scenarios based on the scenarios and policy trends of the IPCC (evaluation reports from AR1 to AR5, 1.5°C special report, etc.) and the IEA (World Energy Outlook, Energy Technology Perspective, EV Outlook, etc.).
- The goal of achieving CN and the assumption that the ratio of EVs will be in 25 to 40% in 2030 are also consistent with the Ministry of Economy, Trade and Industry's Technology Roadmap for Transition Finance in the Automobile Sector (March 2023).

### lement 4

 Mazda expects to invest 1.5 trillion yen overall by 2030, including business partners, in areas such as R&D and capital expenditure on electrification. Of this, the amount of investment at Mazda itself will account for about half of the total.

### ■ Transition Bond / Loan Overview

and 5 overseas production sites)

Date of bond issuance / loan agreement	March 7th 2024/ March 1st 2024			
Issued Amount	Bond 150 billion yen / Loan non-disclosure			
Structuring Agents	SMBC Nikko Securities Inc., Sumitomo Mitsui Banking Corporation			
<b>Evaluation Agency</b>	Japan Credit Rating Agency, Ltd.			

### Use of Proceeds and KPI/SPT

\* The allotment target this time is highlighted in **bold and blue**.

	<u> </u>	our and blue.			
Focus Area	Eligibility Criteri	overview of Project			
1. Reduction vehicle CO2	Development and production of electric vehicles (BEV)				
emissions from a well-to-wheel perspective (Green transition eligible projects)	2) Reduction of CO <sub>2</sub> emissions through misolutions	Development and manufacture of hybrid (HEV) and plug-in hybrid (PHEV) vehicles Development and manufacture of HEV and PHEV components Development of carbon neutral fuels (next-generation biofuels, synthetic fuels, etc.)			
2. CN	Decarbonization of internal plant power generation	conversion of fuel from coal to ammonia combustion  - Investment in renewable energy power generation such as solar power generation			
at Mazda plants (Green transition eligible projects)	4) Procurement of renewable energy	<ul> <li>Purchase electricity derived from renewable energy from third parities including the use of corporate PPA concluded with local parties in each region</li> </ul>			
	5) Improvement of en efficiency in the automobile manufact processes	efficiency			
3. Realization of a safe and secure automobile society (Social eligible projects)	6) Advanced safety technology / advance driving support techn				
K	(PI	SPT			
Global BEV sales r	atio	25% or more in FY2030			
	rom Mazda's global tic production sites	Achieve of CN in FY2035			

### Climate Transition Strategy and Governance (Element 1)

### -CN-Related Targets-

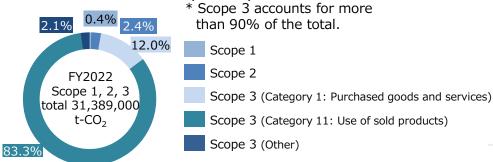
2030 Reduction of CO<sub>2</sub> emissions by 69% (compared to 2013) at Mazda on a non-consolidated basis

- All vehicles produced will be equipped with electrification technology
- Achievement of a BEV ratio of 25 to 40%

2035 Realization of CN at Mazda's global plants

2050 Realization of CN throughout the supply chain

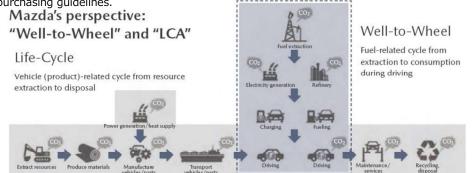
Breakdown of GHG emissions (FY2022)



### —Initiatives for emissions reductions throughout the supply chain-

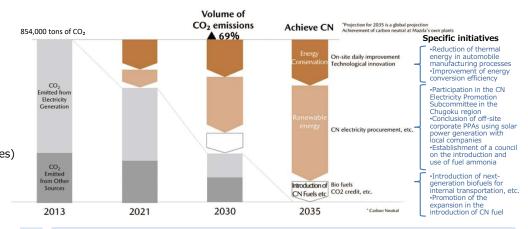
- From the Well-to-Wheel and LCA perspectives, Mazda will engage in efforts to reduce  ${\rm CO_2}$  emissions
- Mazda will adopt the multi-solution approach, based on the belief that vehicles with diverse
  power sources will be chosen due to the adoption rate of renewable energy, the development
  of EV charging infrastructure, and policy support across different regions worldwide.

 After visualizing emissions and evaluating supply chains, Mazda will work with suppliers to develop a roadmap for the achievement of reduction targets, which is written in the purchasing guidelines.



### Emission Reduction Pathway for the Achievement of CN at Mazda Plants by 2035

- Mazda has crystallized an interim target and roadmap for its domestic plants and offices, which account for about 75% of its global CO<sub>2</sub> emissions, aiming for the realization of CN at all global plants by 2035.
- The promotion of energy saving, the introduction of renewable energy and the introduction of CN fuel are the three pillars of its initiatives.



- Mazda promotes the reduction of CO<sub>2</sub> emissions throughout the entire life-cycle in terms of both vehicles and fuel, aiming to reduce CO<sub>2</sub> emissions throughout the life-cycle overall.
- Until 2030, when the full-scale launch of BEVs is planed, Mazda will adopt a multisolution approach based on the assumption that various power sources such as HEVs, PHEVs, and BEVs will be required depending on regional circumstances.
- A scenario has been drawn up in which BEVs will become more widespread after 2030, and while preparing a system that can cope with this, Mazda believes that the optimum solution may differ depending on local electricity conditions and other factors, and Mazda will pursue the achievement of CN through multi-pathways.
- Efforts to achieve CN through multi-pathways include,
  (i) Incorporation of electric vehicles into the mixed production system (a system in which various models are produced in random order, without producing the same model altogether), which is one of the Mazda's strengths.(ii) Efficient implementation of technology development and production system construction based on the building block concept,(iii) Research and development(R&D) to reduce the fuel and electricity costs and utilize carbon-neutral fuels, also in collaboration with capital and business partners.
- Mazda will also work with suppliers to develop a roadmap for the achievement of reduction targets, including calling for the implementation of life-cycle assessments (LCA).

### Key Points

Full-scale launch

of BEV

### Climate Transition Strategy to be Science-based Including Targets and Pathways(Element 3)

Alignment with Mazda's electrification strategy for 2030 and the Ministry of Economy, Trade and Industry's Technology Roadmap in the Automotive Sector

Ministry of

Economy, Trade

and Industry

**Transition** 

Roadmap for

Decarbonization

of the Power

Sector

Phase 3

2028 -

2030

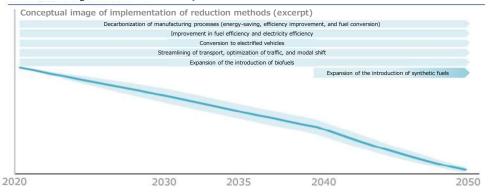
**Theme Specific initiatives** Phase Strengthening Phase 1 technology ■ Full use of existing multi-2022 development electrification technology 2024 toward the era of electrification ■ Collaboration with partners companies in the Chugoku region Phase 2 Transition to ■ Procurement of batteries from 2025 electrification partner companies 2027 ■ Introduction of a new hybrid system ■ Begin launching BEV globally ■ Full-scale introduction of BEV

The three phases in Mazda's electrification strategy-

 Mazda estimates the BEV ratio to be in 25 to 40% in 2030, and has established **three phases** for the period starting from 2030 onwards, when the full-scale introduction of BEV will begin.

Technology Roadmap for Transition Finance in Automotive Sector

### Assumed CO<sub>2</sub> Reduction Pathway



### Targets for EV and other vehicles in Japan

Research and development.

Demonstration

	Target year	Goal	FCV	EV	PHEV	HEV	ICE
Japan	2030	HV: 30 to 40% FV/PHV: 20 to 30% FCV: Up to 3%	Up to 3%	20-30%		30 to 40%	30 to 50%
•	2035	Electrified vehicles (EV/PHV/FCV/HV)100%	100%			N/A	

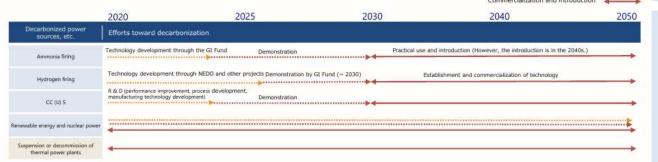
### Transition Roadmap for Decarbonization of the Power Sector

dedicated vehicles

battery production

■ Consideration of investment in

■ R&D on advanced battery technology



· Mazda has announced plans to convert the fuel used in the power generation equipment at its Head Office plant from coal to ammonia mono-firing. The aim is to achieve zero CO<sub>2</sub> emissions from 2030 onwards.

### **Key Points**

- The achievement of CN across the entire supply chain by 2050 and the expectation of the EV ratio will be in 25 to 40% in 2030 are consistent with the Ministry of Economy, Trade and Industry's Technology Roadmap for Transition Finance in Automobile Sector.
- The planned replacement with ammonia mono-firing from 2030 is consistent with the Transition Roadmap for Power Sector.

Implementation Transparency (Element 4)

Further Improve to Generate Cash through Making the Most of Existing Assets and Invests to the Business to Motorize

Main resources

Mazda's investment plan to 2030

Further improve to generate cash through making the most of both new developments and existing assets including internal combustion engines

Target in the fiscal year ending March 31, 2026

ROS\*: 5% or higher

\* Return on sales (operating income ratio)

Main investments

Jointly developing electric and electronic architectures, automotive batteries, and electric drive units with business partners

Investments in the business to motorize through 2030\*

Approximately 1.5 trillion yen

\* It includes research and development expenses and capital spending by Mazda and business partners

Key Points

- Mazda plans to invest approximately 1.5 trillion yen through 2030, including R&D and capital expenditure on electrification, together with its key business partners. Of this, the amount of investment by Mazda itself is expected to be about half of the total. Mazda will disclose investment forecasts appropriately to the extent possible if there is a significant change in outlook.
- Mazda aims to build and evolve a system whereby it can produce electric drive units together with business partners in the Chugoku region, to contribute to the development of the regional economy by maintaining industry and employment in the Chugoku region and other areas. In addition, Just Transition in the supply chain, including sub-contractors, is being considered in Corporate Strategy Division.

### **Committee | Results**

### Mazda Motor Corporation Transition Bond / Loan

### **Result:**

### Approved for Climate Innovation Finance Promotion Grant Scheme

### Main opinions

## Transition strategy

- The committee members is in favor of the adoption. Based on the assumption that the number of BEVs will increase from 2030 onwards, the use of proceeds for BEVrelated technological development is eligible for transition finance.
- It is important to adopt a multi-solution approach during the transition process. On the other hand, each technology area should be properly assessed within a multilinear scenario up to 2050 and reviewed as early as possible if necessary. Continuous discussions should be held within the promotion structure led by the President, so that the adequacy of the transition plan after 2030 can always be explained.
- As a leader in the regional economy, we expect the appropriate cooperation with tier 1, 2 and 3 suppliers will drive the decarbonization of the regional economy, although initiatives are already underway.

# Other elements / other

 It is important to link initiatives for transition plan and electrification with management strategies and future management visions. Considering Mazda's current market position, we expect Mazda to leverage its strengths and promote its CN strategy with a winning formula.

This report focuses on the contribution of transition finance to the realization of Japan's 2050 CN and the Paris Agreement, and does not cover any evaluation of the risks of transition finance as a financial instrument. Even in the model case of this project, it should be noted that credit risks and other risks (such as price fluctuation or liquidity risks in the case of bonds) exist as in ordinary financing.