

International Forum on Regional Development SDGs 2022 —Initiatives by Keidanren to Address Climate Change—

January 14, 2022 Keidanren (Japan Business Federation) Environment & Energy Division

1. Basic Concept

Establishment of Sustainable Capitalism (" New Growth Strategy")

Vision of the Future in 2030

Establish sustainable capitalism with Society 5.0, which brings together the wisdom of diverse stakeholders and co-creates diverse value through digital transformation (DX)

Value Co-Creation with Consumers 2028 2029 2030 A society in which consumers can experience **New Growth** ease of living through DX A vision of the future that we want to **Through DX** Maximizing the value of the consumer experience realize in Japan and around the world by through DX in healthcare, learning, supply chains, and 2030, based on value co-creation with five the government. stakeholders Achieving new growth through international expansion. **Value Co-Creation with Workers** Value Co-Creation with Local Communities A society that continues to A society in which flexible Reforming the create value by leveraging the Regional work styles and diverse, strengths of local **Way We Work Development** multi-pathway careers are Realization of Society 5.0 communities realized Maximizing the value-creating power of Establishing There is a movement towards the return of individuals and improving the productivity of human resources to regional communities, Sustainable society as a whole. and a diverse array of entities are co-creating Achieving sustainable growth by improving Capitalisin value in these regional communities. work-life balance and restoring the birth rate. Ecosystems at the core of regional growth. Realization of a resilient and sustainable regional economy and society. A globally cooperating society through Japan's proactive A society in which global environmental sustainability and rich lives are compatible involvement Value Co-Creation with the International Community Reconstruction Value Co-Creation with the Future of the Earth of the **Achieving** Taking the lead in expanding and deepening the Setting "carbon neutral in 2050" as the vision of free trade and investment regime while proactively International **Green Growth** society to be pursued, and striving to create ensuring economic security. **Economic** innovation throughout the country. Achieving sustainable international growth by

Order

working to solve global issues through international

collaboration.

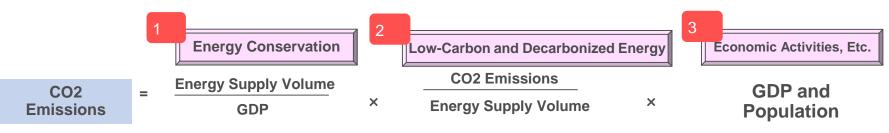
Contributing to the greening of the world through

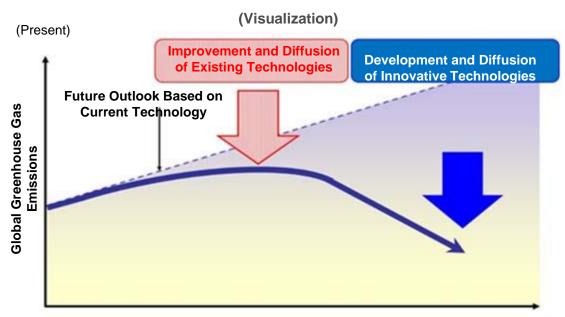
the deployment of technology.

Keidanren's Basic Approach to Climate Change Measures

- In order to link climate change measures to green growth, it is necessary to simultaneously promote (1) energy conservation and (2) low-carbon and decarbonized energy.
- In the medium term, it is important that we improve and spread existing low-carbon technologies (accumulation of best available technologies (BAT) and concrete measures, such as the Keidanren Carbon Neutrality Action Plan), and in the long term, it is essential that we develop and spread innovative technologies (creation of innovation, such as in Keidanren's Challenge Zero).

Factor Breakdown Equation for CO2 Emissions (Kaya Identity)





2. Proactive Approaches by the Business Community

Keidanren's Climate Change Initiatives to Date

Keidanren always acts proactively, ahead of the policy decisions of the United Nations and the Japanese government.



Outline of Keidanren's "Carbon Neutrality Action Plan"

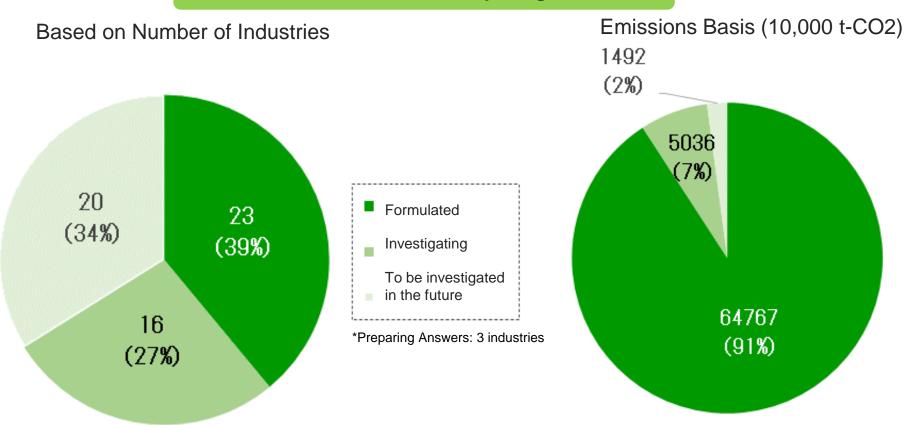
■ Contribute to global-scale, long-term measures to combat global warming by formulating a vision and implementing the four pillars of our initiatives

and implementing the four pillars of our initiatives 2050 62 industries Carbon participating A Vision for Carbon Neutrality by 2050 Neutrality Phase I Phase II Toward **Initiatives for 2020** Initiatives for 2030 മ Significant Reduction **First** Reducing Emissions from Domestic Business Activities **Pillar** (Scope 1, Scope 2) Set 2020 Targets Set 2030 Targets Global Scale Second Strengthen Inter-Entity Cooperation 으 Pillar (Contributing through low-carbon and energy-saving products and services) Greenhouse Promotion of International Contributions **Third** (Scope 3) (Development of and support for products and technologies on a global scale, Pillar including in developing countries) Development of innovative technologies for 2050 carbon neutrality **Fourth** Gases on Pillar (including transition technologies) PDCA (Verification by a third-party evaluation committee)

Status of the Formulation of Visions for Carbon Neutrality by 2050

- Allindustries have formulated a vision, are investigating a vision, or plan to investigate a vision. The CO₂ emissions of the 23 industries that have already formulated visions are 90% of the total CO₂ emissions for all participating industries.
- This is an expression of our commitment to do our utmost to realize carbon neutrality by 2050.

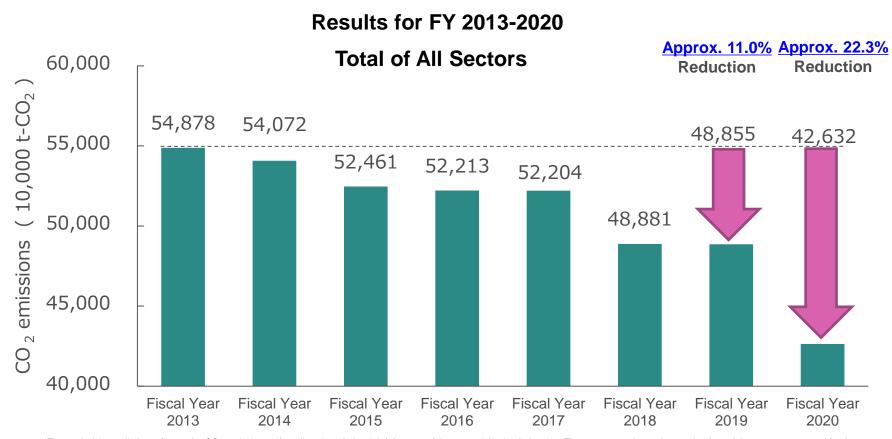
Formulation Status of Participating Industries



^{*}Using CO2 emissions after allocation of electricity for industrial, business, and

First Pillar: Actual Emission Reductions in Domestic Business Activities

- Total CO₂ emissions for all sectors have continued to decline since FY 2013, and will be reduced **by approximately 11%** as of FY 2019.
- Even without the impact of the new coronavirus, steady results are expected to have been achieved.



^{*}The total of the preliminary figures for CO2 emissions (after allocation of electricity) from 56 of the 62 participating industries. The most up-to-date values at the time of the survey were used for the calorific value and the carbon emission factor

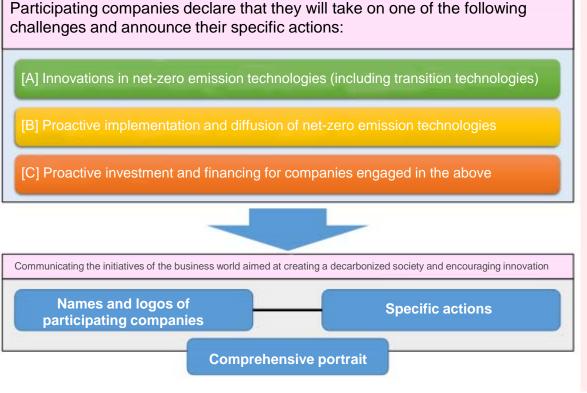
to calculate CO₂ emissions.

^{*}The scope of calculation differs between FY 2013 and FY 2019/2020 due to overseas business transfers, etc.

Outline of Keidanren's "Challenge Zero"



- In June 2020, Keidanren, in collaboration with the government, launched "Challenge Zero." We will strongly promote and encourage, both in Japan and abroad, the innovation actions that companies and other organizations are taking on to realize a decarbonized society.
- By promoting "Challenge Zero," we aim to create a "game changing situation" in which each entity competes for innovation toward a decarbonized society; to attract ESG investment to companies that take on the challenge of innovation; and to promote collaboration between industry, academia, and the government, as well as intra- and interindustry cooperation, for the purpose of creating innovation.
- As of December 1, 2021, 192 companies and organizations have announced 401 initiatives.

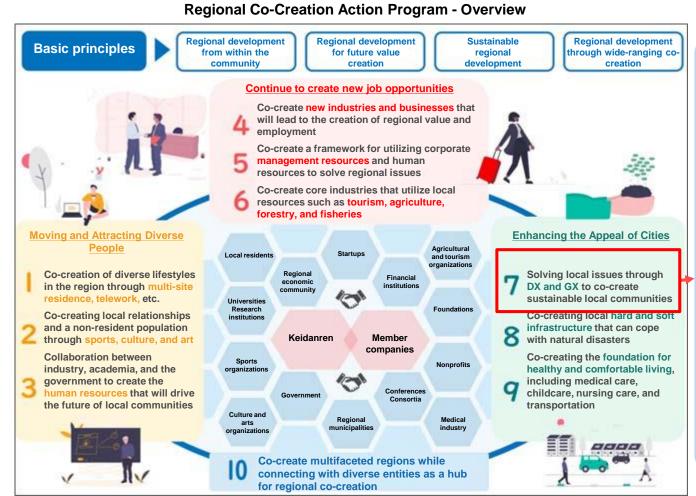


The Zero-Emissions Challenge

- This is a project to compile a list of companies that are taking on the challenge of innovation toward the realization of a decarbonized society, and to provide investors and others with information that they can use. The first list of approximately 300 companies was released in October 2020, and the second list of approximately 600 companies was released in October 2021.
- Targets projects of the Ministry of Economy, Trade and Industry (METI) related to "Environment Innovation Strategy." Lists the company names and the technical themes and names of the projects that each company is working on. Among these companies, those participating in "Challenge Zero" are clearly indicated on the list.

Greening / Decarbonization x Regional Development

- In November 2021, Keidanren published its "Regional Co-Creation Action Program," which outlines its policy for initiatives aimed at realizing regional development and the details of actions to be taken with various collaborative partners based on this policy, and "Regional Co-Creation Case Studies," which summarizes examples of initiatives by member companies and organizations. The collection of case studies is intended to accelerate and expand regional co-creation by promoting concrete cooperation and the sharing of know-how.
- Various examples of green transformation (GX) initiatives have also been collected.



Regional Co-Creation Case Studies

(Some excerpts from GX-related case studies)

- ① Demonstration of CO2-free hydrogen and other regional energy supply chains using renewable energy sources (Kitakyushu City, etc., IHI)
- ② Promotion of next-generation energy and regional development through solar power, storage batteries, etc. (Shizuoka City, ENEOS)
- ③ Hydrogen production demonstration project using used plastic (Kawasaki City, Showa Denko)
- Decarbonization of Hiroshima University, etc. (Higashihiroshima City, Sumitomo Corporation)
- Demonstration test of an autonomous DC microgrid for communities (Onna Village, Okinawa Prefecture, Sony Group)
- ⑥ Operation of AEMS in Kashiwano-ha Smart City, etc. (Kashiwa City, Hitachi Ltd.)