

**Keidanren Action Plan on the Environment  
(Section on Global Warming Measures)  
Reassessment Report**

19 November 2013  
Keidanren

**1. Overview of the Keidanren Action Plan on the Environment**

**(1) Background**

Prior to the United Nations Conference on Environment and Development (Earth Summit) held in Rio de Janeiro, Brazil, in 1992, Keidanren published its Global Environment Charter, setting direction for companies to fulfil their social responsibilities by making independent and proactive environmental protection efforts. In 1996 we issued the Keidanren Appeal on Environment, announcing the preparation of industry-specific independent action plans. Before the adoption of the Kyoto Protocol, these plans were embodied in the Keidanren Action Plan on the Environment (Section on Global Warming Measures) announced in June 1997 (hereinafter, “Keidanren Action Plan”).

**(2) Key Features (Constant Progress)**

**(a) Broad initiative encompassing the Japanese business community**

The Keidanren Action Plan was launched as a broad initiative with participation by 37 industries encompassing manufacturing, energy, distribution, transport, construction, trade, and insurance. The number of industries taking part gradually increased, reaching 61 by fiscal 2008. In formulating the plan, Keidanren set a uniform target of “endeavouring to reduce CO<sub>2</sub> emissions from the industrial and energy-conversion sectors to below the level of fiscal 1990 by fiscal 2010.”<sup>1</sup> The CO<sub>2</sub> emissions of the 28 industries from the industrial and energy-conversion sectors taking part in the Fiscal 1998 Follow-up (performance in fiscal 1997) accounted for about 42% of all CO<sub>2</sub> emissions in Japan and around 76% of total emissions from Japan’s industrial and energy-conversion sectors in fiscal 1990.<sup>2</sup> This high coverage rate is evidence of the

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<sup>1</sup> In the Fiscal 2007 Follow-up (performance in fiscal 2006), the objective was changed to “achieving the target level as an average over the five years of the Kyoto Protocol first commitment period (fiscal 2008–2012)” with a view to further contributing to achievement of Japan’s Kyoto Protocol commitment (a 6% reduction from the 1990 level during the first commitment period).

<sup>2</sup> In the base year of fiscal 1990, the CO<sub>2</sub> emissions of the 34 industries from the industrial and energy-conversion sectors taking part in the Fiscal 2013 Follow-up (performance in fiscal 2012) were 505.51 million t-CO<sub>2</sub>, which accounted for about 44% of Japan’s total emissions of 1,141.2 million t-CO<sub>2</sub> in fiscal 1990. Moreover, they represented approximately 83% of the total amount of CO<sub>2</sub> emitted by Japan’s industrial and energy-conversion sectors in fiscal 1990 (612.3 million

effectiveness of the Keidanren Action Plan.

**(b) Setting targets as a commitment to society**

Each participating industry set its own targets at levels achievable only through the utmost efforts and strived to fulfil them.

In the process, industries that had difficulty meeting initial targets in the face of changing economic circumstances and a volatile business environment used domestic credits and Kyoto Mechanisms credits to supplement their reduction efforts. Conversely, spurred on by Keidanren's policy that industries achieving greater reductions than initially forecast would set higher target levels, many industries raised their targets as they approached their original goals.<sup>3</sup>

Thus, although the Keidanren Action Plan began as a voluntary initiative, industries maximised their efforts, regarding the plan as a commitment to society.

**(c) Transition of role in government climate change policy**

Partly due to such industry efforts, the Guidelines of Measures to Prevent Global Warming adopted by the Japanese government's Global Warming Prevention Headquarters in March 2002 positioned the Keidanren Action Plan as one of its core elements in aiming to achieve a balance between economic and environmental needs.

Following the entry into force of the Kyoto Protocol, the Keidanren Action Plan was acclaimed as playing a central role in industrial measures in the Kyoto Protocol Target Achievement Plan decided by the cabinet in April 2005. The plan stated: "The advantages of these voluntary methods include the ability of each entity to use its originality and ingenuity to select outstanding countermeasures, the likelihood of incentives to attempt to reach more difficult targets, and having no procedural costs for

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t-CO<sub>2</sub>).

<sup>3</sup> The following industries (listed in alphabetical order) reported raising their targets a total of 41 times: All Japan Freight Forwarders Association (twice); Association of Japanese Private Railways; Brewers Association of Japan; Flat Glass Manufacturers Association of Japan; four electrical/electronics-related groups; Japan Aluminium Association; Japan Association of Rolling Stock Industries; Japan Automobile Manufacturers Association (three times); Japan Cement Association; Japan Chemical Industry Association; Japan Copper and Brass Association; Japan Department Stores Association (twice); Japan Federation of Construction Contractors; Japan Federation of Housing Organizations; Japan Foreign Trade Council; Japan Gas Association (three times); Japan Mining Industry Association; Japan Paper Association (twice); Japan Rubber Manufacturers Association (twice); Japan Sanitary Equipment Industry Association; Japan Sugar Refiners' Association; Japan Trucking Association; Japanese Electric Wire & Cable Makers' Association (three times); Japanese Shipowners' Association; KDDI; Lime Manufacture Association (twice); Petroleum Association of Japan; Real Estate Companies Association of Japan; and Scheduled Airlines Association of Japan (twice).

both the government and the implementing entity. It is expected that these advantages will be further exploited in voluntary action plans by businesses.”

It should be noted that a system that began as an independent initiative by the business community came to be positioned as a key pillar of government climate change policy, a model not seen in other countries.

#### **(d) Enhancing transparency and reliability**

Through annual follow-ups, industries taking part in the Keidanren Action Plan were held accountable for the quantitative targets they had set, specific efforts to achieve these targets, and actual results.

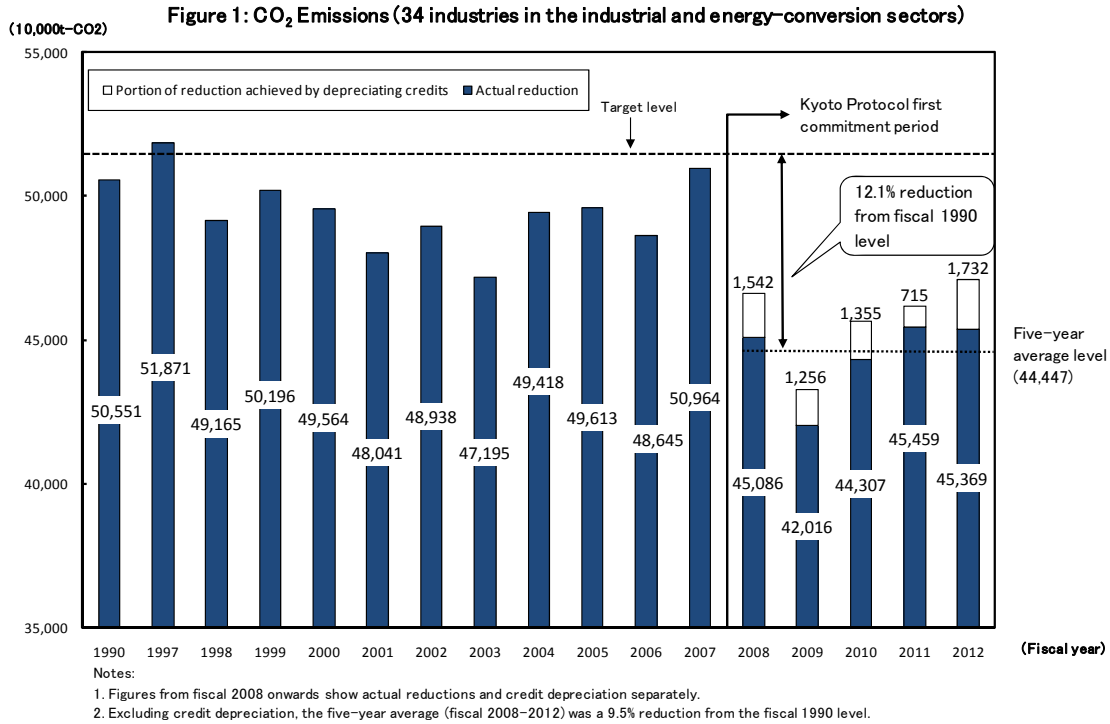
In 2002, Keidanren established an Evaluation Committee for the Keidanren Action Plan on the Environment (hereinafter, “Evaluation Committee”) to objectively check that its follow-up of the Keidanren Action Plan was being conducted appropriately and point out any areas for improvement. The reports of the Evaluation Committee greatly contributed to enhancing the reliability and transparency of the Keidanren Action Plan. For example, comments from the Evaluation Committee noted variation among industries in the boundaries between businesses subject to follow-up and suggested that industries should go beyond simply reporting that CO<sub>2</sub> emissions had increased or decreased to providing qualitative explanation of the reasons for the change. In response to such feedback, industries took specific steps to address these points in subsequent years’ plans.

Furthermore, since the Keidanren Action Plan was positioned as a pillar of the Japanese government’s climate change policy, progress towards achievement of targets was also reviewed by government councils including the Industrial Structure Council and the Central Environment Council.

## **2. Specific Results**

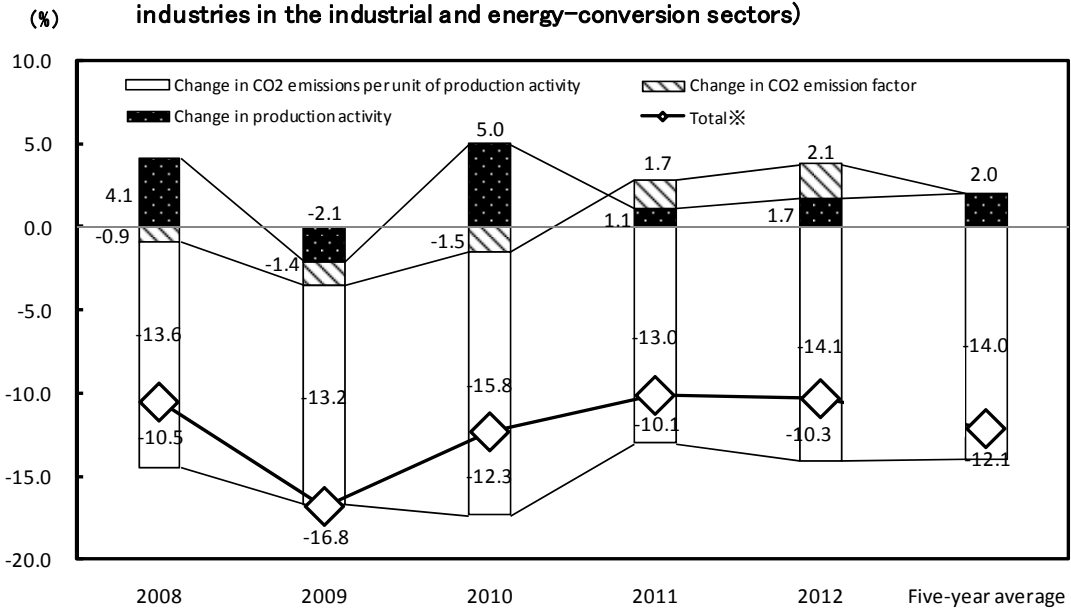
### **(1) Steady Reduction of CO<sub>2</sub> Emissions through the Keidanren Action Plan**

CO<sub>2</sub> emissions by the 34 industries in the industrial and energy-conversion sectors that participated in the Keidanren Action Plan averaged 444.47 million t-CO<sub>2</sub> over the five years from fiscal 2008 to 2012, a reduction of 12.1% from the fiscal 1990 level of 505.51 million t-CO<sub>2</sub> (see Figure 1).



The greatest factor behind the results achieved by the Keidanren Action Plan was the dramatic improvement in the energy efficiency of production activities. Looking at the factors contributing to reduction in CO<sub>2</sub> emissions compared to fiscal 1990, as shown in Figure 2 below, we see that change in CO<sub>2</sub> emissions per unit of production activity was the biggest driver of reductions, both on a year-by-year basis and averaged over the five years.

**Figure 2: Factors Contributing to Reduction in CO<sub>2</sub> Emissions (average for 34 industries in the industrial and energy-conversion sectors)**

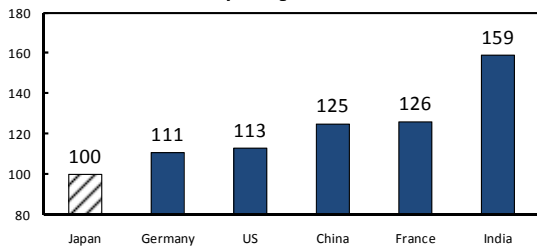


Note: Sum of items may differ from total due to rounding.

## (2) World's Highest Levels of Energy Efficiency

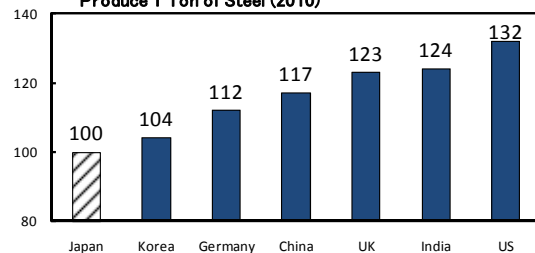
The international comparisons of energy efficiency in the industrial and energy conversion sectors in Figures 3–7 below show Japan's superior energy efficiency compared to other countries. Japanese companies have strived to improve energy efficiency since the two oil crises of the 1970s, and the Keidanren Action Plan initiatives further enhanced efficiency.

**Figure 3: Comparative Index of Energy Required to Produce 1 kWh of Electricity through Thermal Generation (2010)**

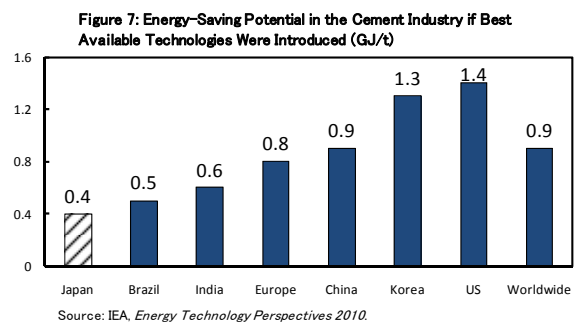
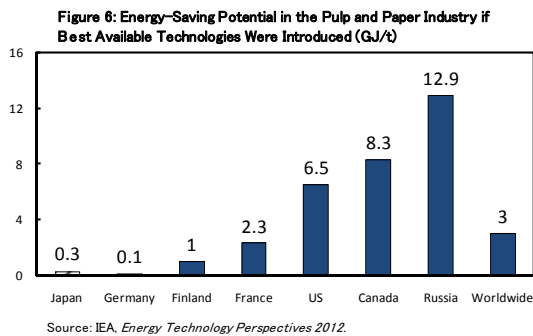
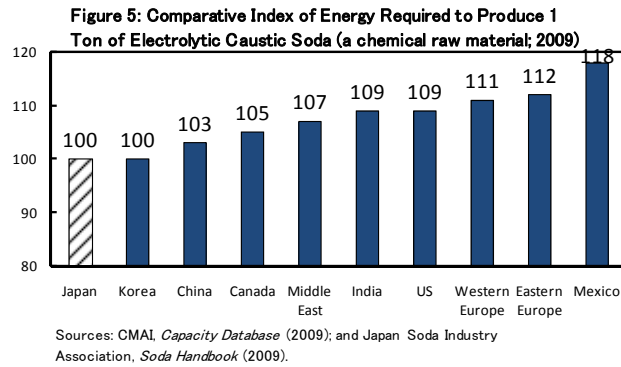


Source: Ecofys, *International Comparison of Fossil Power Efficiency and CO<sub>2</sub> Intensity* (2013).

**Figure 4: Comparative Index of Energy Required to Produce 1 Ton of Steel (2010)**



Source: Research Institute of Innovative Technology for the Earth.



### (3) Stronger Global Warming Measures at the Industry and Company Level

Through the formulation of the Keidanren Action Plan and regular follow-up, industry associations accumulated various data on their members' production activities and energy consumption, enabling them to share best practices and other valuable information with their members. Some industries also set up meetings to discuss the Keidanren Action Plan initiatives, where those responsible for such efforts networked and shared information. Such awareness-raising within industries and strengthening of the PDCA cycle for global warming countermeasures at the industry and company level were major outcomes of the Keidanren Action Plan.

### (4) Promotion of Innovation (Technology Development)

In the course of formulating, implementing, evaluating, and improving their own action plans, companies constantly worked to develop and commercialise technologies and make their production activities more efficient, generating innovation as a result. Leading examples include coke dry quenching (CDQ), cogeneration, heat pumps, and combined cycle power generation.<sup>4</sup>

### (5) Enhanced Understanding and Recognition in the International Community

Through the Keidanren Action Plan efforts, in addition to seriously examining and

<sup>4</sup> See attachment for specific examples of technology development and deployment.

implementing global warming countermeasures, the Japanese business community actively communicated the outcomes of its initiatives to the United Nations and other international forums. For example, at the Major Economies Business Forum on Energy Security and Climate Change (BizMEF)<sup>5</sup> we have expressed views on an international climate change framework jointly with overseas business organisations and such discussions influenced UN climate change negotiations.

Keidanren also endeavoured to promote understanding and recognition of Japan's serious approach to global environmental initiatives through dialogue with our counterparts in other countries and by outlining the Japanese business community's contribution to global warming countermeasures at various forums. For example, we hosted side events during COP meetings to publicise results achieved through the Keidanren Action Plan and plans for new initiatives from 2013 onwards under Keidanren's Commitment to a Low Carbon Society.

### **3. Future Efforts**

Initiatives undertaken to date have greatly reduced CO<sub>2</sub> emissions from the industrial sector. However, CO<sub>2</sub> emissions from the residential sector and other domains continue to rise, and there is a pressing need to achieve reductions in these areas. Overseas CO<sub>2</sub> emissions are rising rapidly, especially in emerging countries, and Japan is able to contribute to addressing this issue. Moreover, the international community will not be able to achieve its target of halving greenhouse gas emissions by 2050 with existing technologies alone; there is a need to accelerate innovative technology development. Given these realities, it is essential for the Japanese business community to continue its efforts to reduce CO<sub>2</sub> emissions without pause beyond fiscal 2013 and to contribute to worldwide reduction of CO<sub>2</sub> emissions from a long-term perspective.

In December 2009 Keidanren announced its Commitment to a Low Carbon Society, setting out a shared vision, pledging "our resolve as members of the Japanese business community to harness our technological prowess and assume an instrumental role in the drive to halve global GHG emissions by the year 2050." Participating industries commit to provide society with world-leading low carbon technologies while maintaining and improving their own levels of energy efficiency, and to formulate action plans on the

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<sup>5</sup> BizMEF is a partnership of major multi-sectoral business organisations including the US Chamber of Commerce and BUSINESSEUROPE, and provides a platform for advocating the views of the business community in climate change negotiations. Keidanren has played a leading role in this forum since its establishment in February 2009.

following four points: (a) establishment of CO<sub>2</sub> emission reduction targets for domestic business operations up to the year 2020, (b) strengthened cooperation with stakeholders including consumers and customers, (c) international contribution including technology transfer to developing countries, and (d) development of innovative technologies.

Through such efforts, Keidanren will help to achieve a balance between environmental and economic needs by reducing CO<sub>2</sub> emissions and encouraging innovation. We will also reinforce our efforts to communicate the outcomes of the Japanese business community's proactive initiatives both domestically and internationally.