

Summary of the Proposal

Carbon neutrality has become an international trend as a solution to common global challenges in the post-pandemic era, such as global warming and sustainable procurement of resources and energy. To seize this opportunity and achieve carbon neutrality by creating a “sustainable carbon society” based on carbon recycling that utilizes CO₂ as a resource, the Carbon Recycling Fund Institute (CRF) proposes the following and will strive to accomplish these goals in collaboration with member companies (hereinafter referred to as “CRF members”).

Development and promotion of innovation and human resource development

- Carbon recycling technology is at the stage where its full-scale research, development, and demonstration has commenced. Japan’s developmental competitiveness in the field is on par with that of the United States, Germany, and other countries. CRF members are voluntarily aiming to realize carbon neutrality by 2050 and strive to be actively engaged in the development, practical application, social implementation, and funding of carbon recycling technologies and products. In doing so, the members will make maximum use of inter-industry collaboration and open innovation, which includes collaboration with start-ups and ventures, to accelerate development speed.
- To assist these measures undertaken by the industry, the government is required to strongly support the development and promotion of innovation by enhancing funds and measures to accelerate projects related to green innovation (carbon recycling, development of CO₂ supply chains including hydrogen and ammonia, etc.)
- Measures to develop human resources who can lead creation and social implementation of innovation are also important.

Improvement of the market environment

- The significance and role of carbon recycling technologies and products will be established through social implementation. Hence, CRF members promote it voluntarily by utilizing inter-industry cooperation and collaboration among the industrial, academic, and governmental sectors. Additionally, they strive to promote the understanding and awareness of carbon recycling technologies and products.
- The government and local municipalities should engage in public procurement of such products in line with the trends of the industrial world and encourage the expansion of sales channels and cost reduction. They are also expected to make the most of opportunities such as the World Expo 2025 in Osaka.
- Companies and the government should acquire and accumulate data related to CO₂ capture and utilization through social implementation and develop an environment for quantitative evaluation. They should aim to optimize the overall effects and impact of carbon recycling implementation through objective consideration based on the life cycle assessment (LCA).
- Japan should display initiative by promoting the evaluation of CO₂ sinks such as oceans and plants and creating international rules.

- The Japanese government is required to proceed with the review of related systems, including regulatory reform, so that the nation can maintain and improve its international competitiveness through social implementation of carbon recycling.
- The values and behaviors of people are changing through the response to COVID-19. Therefore, it is essential to take advantage of the trend toward digitization and decentralization and link carbon recycling to various regional revitalization measures.

Development in the global market

- As the movement toward carbon neutrality is spreading internationally, CRF members will see it as an opportunity and actively tap into the global market of licensing and other businesses.
- Japan must demonstrate its presence in an international forum to support these movements. It should also strengthen international collaboration through International Conferences on Carbon Recycling, the conclusion of a memorandum of cooperation with other countries, and joint research based on these conferences.
- It is vital for industry, academia, and government to collaboratively strengthen the international dissemination of information on the usefulness and progress of carbon recycling. As part of this, the Roadmap for Carbon Recycling Technologies formulated by the government should be revised in accordance with developments in the field.