

Japan's decarbonization policy and the efforts of the Japanese steel industry

- Japanese Prime Minister Yoshihide Suga declared in October 2020 that **Japan will become carbon neutral society by 2050**. At the end of December, the Japanese government unveiled the Green Growth Strategy Through Achieving Carbon Neutrality. In 2021, government officials are accelerating the discussions for reviewing government targets and plans for achieving carbon neutral in 2050.
 - On February 15, 2021, the JISF announced the **Basic Policies of the Japan Steel Industry on 2050 Carbon Neutrality aimed by the Japanese government** (a summary is in the next slide).
 - The Japanese steel industry supports Japan's ambitious goal of becoming carbon neutral in 2050. To contribute to accomplishing this goal, the steel industry has declared its basic policy to **taking on the challenge of achieving zero-carbon steel**. The Japanese steel industry is positioning 2050 carbon neutrality as one of the highest priorities and is stepping up the pace of carbon neutrality activities.
 - The Balance concerning "S + 3E" (Safety + Environment, Economic efficiency, Energy security) is an extremely important part of Japan's energy policies. **In Japan, industrial electricity rates are the highest in the world**, due in part to problems with restarting nuclear power plants and annual FIT* surcharge of more than 2 trillion yen. Costly electricity is one of the biggest barriers to Japan's ability to achieve an equal footing in comparison with other countries. The JISF is asking the Japanese government to act quickly to correct this inequality.
 - The JISF has **two major concerns about carbon pricing**, which is always part of discussions about combatting global warming.
 - First, the introduction of carbon pricing in industry sectors with **no alternative technologies for decarbonization** would deprive companies of resources, especially for R&D, and inhibit technological innovation. As a result, such policy would be **contradictory to the realization of zero-carbon steel**.
 - Second, international comparisons of carbon pricing should be based on the levels of real load, not just the existence of the system. In Japan, in addition to the **explicit carbon price** of climate change tax, there are **indirect and implicit carbon prices** such as various taxes imposed on fossil energy and FIT* surcharge. Also considering Japan's energy import prices (without tax) that are higher than international level, the **actual energy costs that industry (steel sector) bears are among the highest in the world**.
- In addition, for international comparison of carbon emissions, it is important to **evaluate based on international standards such as ISO**. It is a major premise that **CBAM**, which is being considered as a measure against carbon leakage, **must be WTO consistent**.

Basic Policy of the Japan steel industry on 2050 Carbon Neutrality aimed by the Japanese government ~summary

- The Japanese steel industry supports Japan's ambitious policy of achieving carbon neutrality by 2050 and it will aggressively take on the challenge to realize zero-carbon steel with the aim of contributing to the Japanese government policy.
- Our challenge includes
 - (1) contribution through our technologies and products and
 - (2) initiatives to reduce CO₂ emissions in steel production process (i.e., **zero-carbon steel**).
- Realization of zero-carbon steel is an extremely difficult challenge and that is unlikely to be realized in a straight line. Therefore, **the Japanese steel industry will explore multiple pathways** to the challenge by employing every possible means including, our actively ongoing efforts for “the **drastic reduction of CO₂ emissions from blast furnace plus CCUS** (carbon capture, utilization, and storage)”, “**hydrogen-based iron making**”, expanded use of scrap, recovery of low- to medium-temperature waste heat, and use of biomass.
- For the realization of zero-carbon steel “Low-cost and stable supply of large quantities of **carbon-free hydrogen** and **carbon-free electricity**” and “Research and development of economically rational **CCUS** and its implementation in society are essential external conditions.
- Fostering public understanding that the realization of **zero-carbon steel requires a large amount of costs**, as well as establishing a society as a whole to bear these costs is required.

For more information on “The Challenge of Zero-Carbon Steel”, please find below URL
<https://www.zero-carbon-steel.com/en/>