

11th German-Japanese Environment
and Energy Dialogue Forum
16-18 February 2021

Preparing the Industry for Tomorrow:
Decarbonization as Industrial Policy

Political, Technical and Social Pathways and
the Role of Hydrogen

Press release, 18.2.2021

Will industry achieve "Net Zero" in 2050?

German and Japanese experts are optimistic - but it won't work without politics

After three conference days with an average of almost 300 participants, over 40 speakers, six expert forums and nine networking sessions, the German-Japanese Environment and Energy Dialogue Forum ended today. The contributions and discussions made it clear that the challenges for energy-intensive industries in particular are immense. Not only technological innovations, but also political framework conditions such as CO₂ pricing are necessary to make industry in Germany and Japan climate-neutral by 2050.

After the political representatives had presented their respective climate protection goals and strategies for decarbonization on the first day of the conference and think tanks in both countries had shown possible paths and models for "net zero", the focus on the following two days was on practical implementation. How do large corporations like Bosch or Hitachi plan to reduce or offset emissions in the various stages of the value chain in concrete terms? How can virtual power plants contribute to emission reduction, for example in "smart energy stores" or in the use of regional "green" energy sources in local industries? Where can untapped potential for energy efficiency still be found? And in which industries can hydrogen play a decisive role in decarbonization?

Contributions from companies such as Tepco Energy Partner, Hitachi, Marubeni, JX Mining & Metals, Salzgitter AG or RWE as well as in the analyses of Fraunhofer ISI, the Competence Centre for Energy-Intensive Energies KEI or the Institute for Low CO₂ Industrial Processes of the DLR made very clear: there are various levers and pathways for decarbonizing the industry. Fossil fuels can be replaced by "green" energies or hydrogen while energy efficiency can be optimized through process conversions or the use of innovative technologies such as high-temperature heat pumps; or the CO₂ can be captured and used in other industries (*carbon recycling*).

The German and Japanese experts agreed that the electrification of industrial processes is one of the central challenges. "Electricity is the primary energy of the future," said Dr.

Wenzel from KEI. Hydrogen seems to have the biggest potential for CO₂ reduction in steel production and the chemical industry. Technologies are already partly available (for example in the steel production with hydrogen working as a reducing agent), but they do not pay off under the current market conditions. Here, politics are called upon to set the appropriate framework with instruments such as "carbon contracts for difference". In Japan, too, this topic has recently moved up in the political agenda: in December, Prime Minister Suga commissioned the Japanese Ministry of Economy and Environment to develop concepts for CO₂ pricing.

About the EEDF

Since its founding in 2007, the EEDF has become a renowned platform for the information exchange between experts from industry, academia and politics of both countries on current environment and energy related issues as well as a starting point for cooperation projects. It is organized by the German Ministry of Environment, Nature Conservation and Nuclear Safety, the German Ministry of Economy and Energy and the New Energy and Industrial Technology Development Organization (NEDO) in co-operation with the Ministry of Economics, Trade and Industry and the Ministry of the Environment (Japan).

Realization: ECOS and adelphi

Language: German and Japanese (simultaneous interpretation)

Contact:

ECOS GmbH
Westerbreite 7
49084 Osnabrueck/Germany
Johanna Schilling (Ms.)
Tel. +49-(0)541-911 909 97
E-Mail: jschilling@ecos.eu