

Press Release

GJETC presents new studies: Digitalization, decarbonization options for the industry and impact of the Corona pandemic on climate policy

Berlin/Tokyo, May 3, 2021. Today, the German Japanese Energy Transition Council (GJETC) publishes three studies prepared during the last year. The Council, consisting of renowned scientists from Germany and Japan, is committed to science-based cooperation on issues related to global climate heating and energy transition. The studies deal with key questions for the energy transition in both countries: How can Artificial Intelligence (AI) and big data be utilized to optimize power grid operation? To what extent can Carbon Capture and Usage (CCU) and Hydrogen contribute to the decarbonization of energy-intensive industries? And which impact of COVID-19 can be observed on energy consumption, social behaviour and climate policy? From the individual studies, the GJETC has also derived recommendations for policymakers in Germany and Japan. The studies can be downloaded from the [GJETC homepage](#).

Despite the COVID-19 pandemic, the energy transition is making progress worldwide, and with the return of the USA to the Paris climate agreement, achieving more ambitious global climate targets seems more realistic again. In this process, countries can benefit from cooperation on climate policies, create climate-friendly development models, and advance a balanced transition of their energy systems while ensuring a secure energy supply. This is also indicated by the latest results of studies conducted by the GJETC.

Prof. Masakazu Toyoda, the Japanese Co-Chair of the GJETC, puts the findings into context: “The results show that Japan and Germany have the opportunity to significantly reduce their greenhouse gas emissions and aim at carbon neutrality by 2050 with the help of various country-specific approaches. Our studies find that the consistent use of new technologies, innovative methods to use and store carbon dioxide, and active and future-oriented climate policies after the COVID-19 pandemic play an important role in achieving these goals.”

The German Co-Chair, Prof. Dr. Peter Hennicke, adds: “The COVID-19 pandemic has provided us with an example of how we can achieve unprecedented impacts through decisive and rapid policy actions. Policymakers around the world should use the global stimulus programs as an ‘once-in-a-lifetime’ opportunity to initiate and foster a more ambitious economic structural change in the direction of sustainability. As GJETC, we accompany this change scientifically and provide guidance and orientation through our studies.”

All studies can be found at: <https://www.gjetc.org/publications>

Study 1: *Digitalization and the Energy Transition – Use of digitalization to optimize grid operation utilizing AI and Big Data collected from DERs*

This study deals with the use of smart grid technology and other digital technologies to harness Distributed Energy Resources (DERs) in order to enable integration of a higher share of Variable Renewable Energy Sources (VRE) in the distribution grid. Use cases, technical solutions particularly based on Artificial Intelligence (AI) and the Internet of Things (IoT), business models, and experiences in both countries are discussed, but also needs for regulation that will enable their roll-out.

Study 2: *Carbon Capture Use and Storage (CCUS) and Hydrogen Contributing to Decarbonization of Energy-intensive Industries*

This study explores policy directions and possible technologies to decarbonize the industry sector in Germany and Japan because it would be difficult for both countries to achieve the carbon neutrality by 2050 without the sector's efforts of reducing CO₂. In particular, hydrogen direct use, blending hydrogen with natural gas, and CCUS were the subjects studied. Hydrogen direct use and CCU were found most promising for both countries and their potential cooperation on R&D, policy frameworks, and international sustainability and safety standards for hydrogen.

Study 3: *Energy and Climate Policy in the Post COVID-19 era – Comparative Analyses on Germany and Japan*

This short and preliminary study focuses on Germany and Japan and tries to identify possible impacts of COVID-19 on the economy and related energy consumption/CO₂-emissions and on possible induced long-term structural and behaviour changes. It analyses the recovery programs and their possible impacts on sustainable structural change and on the style of policy making. Finally, it suggests setting up a more comprehensive German-Japanese research project that compares the long run effects of the COVID-19 crisis for both countries.

About the GJETC

The German-Japanese Energy Transition Cooperation Council is an international model to strengthen knowledge exchange on technologies, policies and the impacts of the energy transition. In its form, continuity and size, the GJETC is the first German-Japanese cooperation project on the energy transition of its kind. Founded in spring 2016, the Council conducts an extensive study program on core topics of the energy transition, holds stakeholder dialogues with industry and civil society, and has published eleven studies, a series of strategic input papers, and two reports with key recommendations for a successful energy transition in March 2018 and June 2020.

The project, jointly launched by the Wuppertal Institute, ECOS, hennicke.consult and the Institute of Energy Economics Japan (IEEJ/Tokyo) was funded by the German Federal Environmental Foundation (DBU), the Mercator Foundation and the Japanese Ministry of Economy, Trade and Industry (METI) in working phase 1 and 2. In the 3rd phase of the council's work, the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) takes over funding for the GJETC from the DBU.

The Federal Ministry for Economic Affairs and Energy (BMWi), and the Japanese-German Center Berlin (JDZB) also support the project. On the German side, the Wuppertal Institute is coordinating the Council's work as secretariat together with ECOS; on the Japanese side, the Institute of Energy Economics Japan (IEEJ) had been doing this task.

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