

Announcement Concerning Conclusion of a Comprehensive Collaboration Agreement on Carbon Neutrality

March 22, 2022

Kyoto University
Osaka Gas Co., Ltd.

Kyoto University (Kyoto City, Kyoto Prefecture; President: Nagahiro Minato, hereinafter “Kyoto University”) and Osaka Gas Co., Ltd. (Osaka City, Osaka Prefecture; Representative Director and President: Masataka Fujiwara, hereinafter “Osaka Gas”) today concluded a comprehensive^{*1} collaboration agreement (hereinafter, “the agreement”) on carbon neutrality (hereinafter, “the collaboration”).

Kyoto University and Osaka Gas have conducted joint research in various fields, including energy, the environment, and health. The collaboration has been promoted since last year under the initiative of the Kyoto University Open Innovation Institute^{*2} (Director-General: Shinji Asonuma), the Office of Society-Academia Collaboration for Innovation^{*3} (Director-General: Koji Murota), and the Osaka Gas Energy Technology Laboratories in order to build a mechanism for collaboration in a broader scope to achieve carbon neutrality by 2050 and train young researchers in the medium to long term. A symposium^{*4} was held in December 2021. In March 2022, financial assistance^{*5} was launched to support research projects initiated by young researchers at Kyoto University that contribute to realizing a carbon neutral society.

With the conclusion of the agreement, Kyoto University and Osaka Gas will further strengthen the collaboration by promoting joint research on carbon neutrality and exchange of human resources, focusing mainly on young researchers, and holding symposia on a regular basis.

Kyoto University has promoted industry-government-academia collaboration since the 1990s as part of its efforts to train students and researchers. The university established the Office of Society-Academia Collaboration for Innovation in 2007 and the Open Innovation Institute in 2019. It then established the Kyoto University Model as a new industry-government-academia collaboration structure with the participation of Kyoto University group companies. The university has promoted innovation in collaboration with industries.

Regarding carbon neutrality, Kyoto University has long worked on related research on various fronts. In July 2021, it established the Kyoto University Carbon Neutral Promotion Forum to enable researchers to share information. Other initiatives are also underway.

Osaka Gas has actively promoted collaboration with universities which have expertise in various fields, such as energy and the environment, to increase the speed and improve the efficiency of technological development, and has conducted joint research and hosted joint courses.

In January 2021, Osaka Gas formulated the Daigas Group Carbon Neutral Vision, and has been working on the carbon neutralization of city gas feedstock through methanation and the decarbonization of power sources by using renewable energy.

Kyoto University and Osaka Gas will promote initiatives through collaboration to achieve carbon neutrality by 2050.

- *1: Comprehensive collaboration aims to promote large-scale joint research. It aims to seek new themes with social value into the future and create new innovations in various research fields, from the humanities and social sciences to natural sciences, without being limited to specific research fields or researchers. The collaboration encompasses a broader scope, including development of human resources, in addition to meeting the needs of respective R&D projects and businesses.
- *2: The Kyoto University Open Innovation Institute plans and implements full- and large-scale joint studies with organizations under the initiative of Kyoto University. It works with the Office of Society-Academia Collaboration for Innovation and group companies of Kyoto University to centrally manage joint research and give back to society the fruits of collaboration with industry.
- *3: The Office of Society-Academia Collaboration for Innovation formulates strategies and policies and promotes comprehensive management of the industry-government-academia collaboration activities of Kyoto University.
- *4: The first symposium was held on the theme of "A Challenge to Achieve Carbon Neutrality by 2050."
- *5: Financial assistance was offered to further promote innovation so that the Daigas Group can achieve carbon neutrality by 2050. (Financial assistance was offered jointly by the Kyoto University Open Innovation Institute and Osaka Gas Energy Technology Laboratories). There was a public call for research themes in January 2022. The three themes below were adopted in March 2022.
 - (1) Development of a catalyst that decomposes ammonia (Graduate School of Engineering: Senior Lecturer Hiroki Muroyama)
 - (2) Establishment of a process to turn biological resources into methane and methanol by using microorganisms (Graduate School of Agriculture: Assistant Professor Kosuke Shiraishi)
 - (3) Measurement of vertical concentration profiles of CO₂ using drones (Disaster Prevention Research Institute: Assistant Professor Takao Iguchi)