

City to City Collaboration for Zero-Carbon Society in FY2023

オリジナルVer

番号	Main Proposer	Research-Group	City in Japan	Area/City	Country	Project Name	Field	Project Description
1	Overseas Environmental Cooperation Center, Japan (OECC)	City of Yokohama Finetech CO.,LTD. Tokyo Century Corporation Yokohama Urban Solution Alliance (YUSA) Daikin Industries, Ltd.	City of Yokohama	Bangkok	Thailand	Project for accelerating GHG net zero emission under the Bangkok Master Plan on Climate Change	Energy efficiency Renewable energy Waste handling and disposal Transport Support of policy development	Bangkok, capital of Thailand, will play a significant role towards realizing carbon neutrality by 2050 in Thailand. Bangkok is working on climate change with a long-term vision to reach net zero by 2050. This project will promote implementation of the Bangkok Climate Change Master Plan through support at policy level and enhancement of public-private collaboration with active participation of private sector based on collaborative relation between City of Yokohama and Bangkok Metropolitan Administration (BMA). Main activities of the project consist of (1) Collaboration with private sector, (2) Acceleration of Climate Change Master Plan, and (3) Development of mitigation projects.
2	KANSO TECHNOS CO., LTD.	Shiga Prefecture Hiyoshi Corporation The Kansai Electric Power Company, Incorporated Kawasaki Thermal Engineering Co., Ltd. EN2+Co.,Ltd. Vioce Co.,Ltd Kansai Energy Solutions (Vietnam) Co., Ltd. JNK Environmental Research & Consulting Co., Ltd.	Shiga Prefecture	Quang Ninh Province	Vietnam	Project to support the achievement of green growth and the realization of a decarbonized society through city-to-city collaboration between Quang Ninh Province and Shiga Prefecture	Energy conservation Renewable energy Waste treatment Institutional establishment support Others	This project will strengthen and continue the ongoing support and cooperation for Quang Ninh Province's Green Growth Strategy from the perspective of decarbonization, based on the "Memorandum of Understanding for Mutual Cooperation in the Environment and Economy" signed by Shiga Prefecture and Quang Ninh Province. Shiga Prefecture will provide support for the various efforts and needs that Quang Ninh Province is considering for decarbonization, based on the knowledge and experience it has gained in the process of working toward Net-Zero. In addition, as a model case, companies from Shiga Prefecture and other prefectures will implement decarbonization projects in the main centers of Quang Ninh Province's main industries of tourism and industry, aiming for a ripple effect within Quang Ninh Province.
3	Nippon Koei Co., Ltd.	•Sakai City Government •Osaka Gas Co., Ltd. •AIR WATER INC. •CHUGAI RO CO., LTD. •Kubota Corporation	Sakai City	Ba Ria-Vung Tau	Vietnam	Promotion of Zero-Carbon Smart City through City-to-City Collaboration between Ba Ria-Vung Tau Province and Sakai City	Energy Conservation Renewable Energy Waste management Hydrogen Technology Support for institutional building	This project promotes the development of a sustainable urban environment and smart city in Ba Ria-Vung Tau Province. Basic study and workshop will be conducted in the three main areas of collaboration: decarbonization, circular economy, and smart city (including smart industrial parks), where there are needs in Ba Ria-Vung Tau Province and where Sakai City has strengths. In addition to sharing knowledge in these fields, conducting related surveys, and supporting for institutional building, the project considers developing JCM model projects in a wide range of sectors, such as renewable energy/energy saving, waste-to-energy, hydrogen technology and biomass energy utilization, and promotes comprehensive decarbonization of the urban environment in Ba Ria-Vung Tau Province.
4	JAPAN NUS CO., LTD.	Urasoe city SeED Okinawa LLC NEXTEMS	Urasoe city	Airai State	Palau	Support Project for Developing a Sustainable Eco-friendly City: An Intercity Collaboration between Urasoe City and Airai State	Renewable Energy Saving Energy Support for System Establishment waste treatment	In the Airai state, Palau, most of the electricity is currently generated by diesel, and the acceleration of the diffusion of renewable energy is necessary to achieve the NDC target set by the government. Photovoltaic power generation systems that utilize building roofs, foldable couple power generation technology, the possibility of introducing energy services using high-efficiency heat source equipment and hydrogen production will be studied. Considering comprehensively energy generation from these various resources and operating efficient energy operation will contribute to the realization of sustainable and environmentally friendly cities in island regions.

番号	Main Proposer	Research-Group	City in Japan	Area/City	Country	Project Name	Field	Project Description
5	Oriental Consultants Co., Ltd.	<p>Joint proposer: Kawasaki City Government</p> <p>Cooperating companies: Azbil Corporation Green Blue Corporation Daikin Industries, Ltd. Tokyo Century Corporation NEC Corporation MinebeaMitsumi Inc. Fuji Electric Co., Ltd. DMW Corporation</p>	Kawasaki City	Bandung City	Indonesia	Zero Carbon Society Development in Bandung City through Energy Saving of Infrastructure System and Mobility Improvement	<p>Energy Saving Renewable Energy Transportation Infrastructure Support for Institution Building</p>	Mainly support high-priority GHG reduction projects and contribute to the realization of zero-carbon society. This project will promote energy-saving in architecture sector through the introduction of BEMS and high-efficiency air conditioning systems, and the possibility of linking air quality management with the smart LED street lighting and traffic management/control systems will be studied. To support the optimization of air quality monitoring, the effectiveness will be examined by conducting measurements on site and contribute to the capacity building of Bandung City. In field surveys and workshops, the project will share the knowledge of Kawasaki City, which has a history of overcoming pollution and continues to implement advanced measures and initiatives for decarbonization, and provide technical support suitable for Bandung City with Japanese cooperating companies.
6	Japan NUS Co., Ltd.	<p>Ehime Prefecture Kanematsu Corporation PT. DAIKI AXIS INDONESIA Aiken Kakoki K.K. Ehime University</p>	Ehime Prefecture	Gorontalo Province	Indonesia	Support project for the achievement of SDGs and developing a sustainable decarbonized society: City-to-City Collaboration between Ehime Prefecture and Gorontalo Province	<p>Saving energy Renewable energy Septic tanks Waste Forest management</p>	Gorontalo Province, Indonesia, is requesting Ehime province to support a solution derivation based on the formulation of a decarbonization policy for its environmental and social issues. Between Ehime prefecture, the prefecture's companies who own decarbonization technologies and Ehime university, this project will support the formulation of decarbonization policies and plans in Gorontalo Province, and implement the project below as the proposed projects (1) Regional water infrastructure development by decarbonization energy, (2) Sustainable use of forests by cacao cultivation. Support to select and implement JCM candidate projects will also be provided, including making propositions for future JCM projects.
7	Nippon Koei Co., Ltd.	<ul style="list-style-type: none"> <li>•Fukuoka Prefecture</li> <li>•Riamwind Corporation</li> <li>•Agritree Co., Ltd.</li> <li>•BEC Kyushu Co., Ltd.</li> <li>•Weathernews Inc.</li> <li>•Kanematsu KGK VIETNAM Co., Ltd.</li> </ul>	Fukuoka Prefecture	Hanoi City	Vietnam	Promotion of Zero-Carbon Technology to Improve the Environment in Hanoi City	<p>Energy Conservation Renewable Energy Waste management Institutional Support Hydrogen Technology</p>	This project will implement the following activities to solve environmental issues in Hanoi City. (1) Discussions on the promotion of decarbonization (CN) based on both cities' environmental policies, SDGs, and other basic policies. (2) Support the establishment of institutions that contribute to CN in Hanoi City. (3) Support Hanoi City's efforts in human resource development and seminars in the fields of environment and climate change. (4) Support the formation of projects for technologies owned by participating companies (energy efficiency/exhaust wind power generation in factories and commercial facilities, solar sharing in agricultural land, large-scale renewable energy, weather forecasting and Hydrogen) (5) Conduct technical workshops in Hanoi City to promote business matching and the introduction of decarbonization technologies.
8	Institute for Global Environmental Strategies	<p>Environment Bureau, City of Kitakyushu Department of Foreign Affairs, Hai Phong City Daiseki Co., Ltd. Dhowa Technos Co., Ltd.</p>	Kitakyushu City	Hai Phong City	Vietnam	Promotion of Eco-Industrial Parks Toward Carbon Neutrality in Hai Phong City, Vietnam	<p>Energy efficiency, Renewable energy, Waste handling and disposal, Policy support</p>	This project aims to achieve a zero-emission industrial park by promoting an Eco-Industrial Parks concept that reduces GHG emissions and environmental impacts and promotes resource recycling through city-to-city collaboration between the sister cities of Hai Phong and Kitakyushu. Specifically, the following projects will be carried out: (1) a survey on the introduction of renewable energy + battery storage, (2) a survey on liquid and solid waste energy utilization, (3) a survey on the introduction of energy-saving and high-efficiency equipment, and (4) sharing of expertise for decarbonization in Hai Phong City.

番号	Main Proposer	Research-Group	City in Japan	Area/City	Country	Project Name	Field	Project Description
9	Oriental Consultants Co., Ltd.	<p>Joint proposer: Sapporo City Government</p> <p>Cooperating companies/organizations:  Asian Gateway Cooperation  The Sapporo Chamber of Commerce and Industry  Hokkaido University  Hokkaido Gas Co., Ltd.  Iwata Chizaki Inc.  Ariga Planning Co., Ltd.  Zeneral Heatpump Industry Co., Ltd.  DAIKIN INDUSTRIES, LTD.  Transport &amp; Development Bank of Mongolia</p>	Sapporo City	Ulaanbaatar City	Mongolia	Zero Carbon Society Development by Conversion of Energy from Coal in Ulaanbaatar City	Energy Saving Renewable Energy Transport Infrastructure Cooperation for Building Systems	<p>This project will support the city of Ulaanbaatar, where more than half of Mongolia's population is concentrated and over 90% of energy is provided by coal, from the perspective of energy conversion and transportation improvement, thereby contributing to achieving the City's GHG reduction target for 2030. Field surveys will be conducted for a study on the feasibility of rooftop solar power generation in the city and large-scale solar power generation outside the city, as well as a survey on the needs of air conditioning (heat-pump heating) for cold regions, and a study on the promotion of installation of public charging stations for EV vehicles. Workshops and other events will be held to share Sapporo's knowledge and provide technical assistance suitable for Ulaanbaatar City with Japanese cooperating companies/organizations.</p>
10	Carbon Free Consulting Co., Ltd.	<ul style="list-style-type: none"> <li>• OSUMI Co.,Ltd.</li> <li>• The Kansai Electric Power Company, Incorporated</li> <li>• Nippon Koei Co., Ltd.</li> <li>• The Institute for Global Environmental Strategies</li> <li>• Yokohama Urban Solution Alliance(YUSA)</li> <li>• City of Yokohama(Y-PORT CENTER)</li> </ul>	Yokohama	Da Nang	Vietnam	Yokohama / Da Nang City to City Collaboration Project for Realization of a Decarbonized Society through the Introduction of a Carbon Management System (CMS) and Decarbonization Technologies	Energy saving Renewable Energy Framework Development	<p>This project will build on the cooperation efforts of previous City to City Collaboration projects and support the establishment of a decarbonized society in Da Nang city by promoting the introduction of a Carbon Management System (CMS) and decarbonization technologies in order to realize the environment-related plans of Da Nang City. The main components are (1) CMS development and promotion of carbon neutralization in Da Nang City, (2) introduction of decarbonization technologies in Hoa Khanh Industrial Park, and (3) JCM project formulation.</p>
11	Nippon Koei Co.,Ltd.	Toyama City Hokusan Co., Ltd. Toyama Hydrogen Energy Promotion Council Air Liquide Japan G.K.	Toyama City	Renca, Santiago	Chile	Project to Promote Decarbonization and SDGs Dominoes through Participation in the Race to Zero by Renca, Santiago	Energy saving Renewable energy Transport infrastructure Hydrogen	<p>With the goal of supporting Renca Municipality's participation in Race to Zero, the project will further increase GHG reduction activities through JCM model projects, as well as conduct FS and demonstration of advanced initiatives related to hydrogen, negative emissions, and other leading decarbonization technologies. It will be conducted to consult with other countries that support the Renca Municipality, and further promote coordination to ensure effective activities without overlapping. Toyama City will share its knowledge and experience to the maximum extent possible on how to promote decarbonization and SDGs initiatives through collaboration among governments, businesses, and citizens. TSUMUGI@, an SDGs visualization tool of Nippon Koei's DX technology, will be applied to evaluate and improve Renca's contributions to SDGs. Through the project, Renca Municipality will be the pioneer to start the Decarbonization and SDGs dominoes in Chile.</p>
12	Japan NUS Co., Ltd	Toyama City Nihon Kucho Hokuriku Co., Ltd.	Toyama City	Iskandar Malaysia, Johor State	Malaysia	Support project for the realization of decarbonized transportation and city by promoting the spread of renewable energy in the Iskandar region	Renewable energy Transportation infrastructure Policy building support	<p>In this project, the following cases will be considered, based on Toyama City's rich knowledge and experience in the transportation field. (1) BaaS (Battery as a Service) business for battery-exchangeable motorcycles, (2) Greenfield area development support project planned to be newly developed by IRDA and (3) energy management project for solar power generation as a power source to be used for both above mentioned cases. Specifically, basic surveys and project feasibility evaluations necessary for formulating a BaaS business master plan, calculation of greenhouse gas emission reductions, and visit of advanced project areas will be conducted. In addition, in the green field area construction support project, advanced cases from Japan will be introduced. Local authority will be invited to Japan for on-site visits and business matching meetings.</p>

番号	Main Proposer	Research-Group	City in Japan	Area/City	Country	Project Name	Field	Project Description
13	Institute for Global Environmental Strategies	Tokyo Metropolitan Government, Bureau of Environment, Saitama City Hall, City Strategy Headquarters	Tokyo Metropolitan Government, Saitama City	Kuala Lumpur City	Malaysia	Developing an Institutional Framework Towards Kuala Lumpur Zero Carbon City and Neighbourhood in Collaboration with Tokyo Metropolitan Government and Saitama City	Energy efficiency Renewable energy Mobility and infrastructure Policy development Nature based solutions	Contribute to Kuala Lumpur's plan to achieve carbon neutrality by 2050 in "Wangsa Maju Carbon Neutral Center", which located northeast of Kuala Lumpur, with input from Tokyo Metropolitan Government and Saitama City sharing their know-how and knowledge. The input will be used to support KL City in updating its plan and implementing decarbonization projects.
14	Nippon Koei Co., Ltd.	Kawasaki City Aura Green Energy Co., Ltd. PT. Gistec Prima Energindo Polyplastics-Evonik Corporation Air Water Inc. Toyoko Kagaku Co.,Ltd. PT. Gikoko Kogyo Indonesia Nanofuel Co., Ltd. Kowa Company, Ltd. CSD Co., Ltd.	Kawasaki City	Pekanbaru City	Indonesia	Project to Promote 2050 Zero Carbon City in Riau Province Region through Cooperation with Pekanbaru City	Energy saving Renewable Energy Waste management Transportation Institutional support	This project supports the realization of decarbonization domino effect in Riau Province region, starting with the development of a roadmap for Zero Carbon City in 2050 in Pekanbaru City, through city-to-city collaboration between Pekanbaru City and Kawasaki City. To support decarbonization, the project aims to promote circular economy in Riau Province Region through cooperation with palm sector companies that give special consideration to the environment and human rights. In addition, the introduction of IoT, energy management systems, and energy-saving technologies, especially in urban areas and industrial parks, will be promoted.
15	Japan NUS Co., Ltd.	Toyama city Hokusan Co., Ltd. Toyama Hydrogen energy promotion council Nihon Kucho Hokuriku Ltd.	Toyama city	Bali	Indonesia	City-to-city collaboration project for realize decarbonization society by Toyama City and Bali province	Renewable energy Waste treatment Transportation infrastructure System construction support	In this project, we will cooperate with Toyama City and companies in the city that have renewable energy and hydrogen utilization technologies and achievements. As a decarbonization business study including (1) hydrogen production and fuel cell grid connection business, (2) FCV and EV mobility utilization business, (3) support for proper decarbonization waste treatment, we will implement it as an application project. Together with these, we will make use of the policy knowledge related to decarbonization that Toyama City has been working on so far, and propose and support the development of policies and systems that are essential for the smooth implementation of projects.
16	Oriental Consultants Co., Ltd.	Joint proposer: Osaka City Government  Cooperating companies/organizations: FUJI ELECTRIC CO., LTD. DAIKIN INDUSTRIES, LTD. Tokyo Century Corporation NEC Corporation DMW CORPORATION Green Blue Corporation The Osaka Chamber of Commerce and Industry	Osaka City	Quezon City	Philippines	Zero Carbon Development in Quezon City for the Realization of Carbon Neutral Society	Energy Saving Renewable Energy Transport Infrastructure Cooperation for Building Systems	This project will provide support mainly in the areas of buildings, energy, and transportation, which account for the majority of GHG emissions in Quezon City, a member of the C40, and will contribute to achieving carbon neutrality by the year 2050. This year, the second year of the three-year plan, the project will conduct field surveys and hold workshops on the themes of promoting smart energy management for buildings in the city and improving air quality by converting city buses to EVs. While sharing the knowledge of Osaka City, the project will provide technical support suitable for Quezon City with Japanese cooperating companies.
17	Nippon Koei Co., Ltd.	•Osaka City Government •Osaka Chamber of Commerce and Industry •Sumitomo Corporation Asia & Oceania Pte. Ltd. •Osaka Gas Co. Ltd. •Hitachi Zosen Corporation •Tokyo Century Corporation •Fuji Furukawa Engineering & construction Co., Ltd. •Toyota Daihatsu Engineering & Manufacturing (TDEM) •THS Innovations Co., LTD.	Osaka City Government	Eastern Economic Corridor (EEC)	Thailand	Support for Designing Decarbonization Society with BCG Economy in EEC, Thailand	Energy saving Renewable energy Waste treatment Transportation infrastructure Institutional support Digital Transformation Smart city development	This project has been carried out in the Eastern Economic Corridor (EEC), which leads the zero-carbon society in Thailand to realize the Bio-Circular-Green Economy (BCG) model by formulation of JCM model projects, such as the introduction of energy-saving equipment and waste-to-energy project and promotion of DX project. Based on the collaboration in Phase1 and Memorandum of Understanding (MOU) between Osaka City and EEC, this year as second year of Phase 2 activities, Osaka City will support the realization of zero-carbon society through holding policy dialogue and strengthening cooperation with other related organizations.
18	Nippon Koei Co., Ltd.	•Osaka City Government •Osaka Chamber of Commerce and Industry •Osaka Gas Co. Ltd. •YUASA TRADING CO., LTD. •ENDO Lighting Vietnam Co., Ltd. •Sumitomo Mitsui Trust Panasonic Finance Co., Ltd. (SMTMFC) •Johnson Controls-Hitachi Air Conditioning Vietnam LLC (JCH)	Osaka City Government	Ho Chi Minh City, Thu Duc City	Vietnam	Promotion of Carbon Neutrality based on Climate Change Policies in Ho Chi Minh City and Thu Duc City	Energy saving Renewable energy Waste management Institutional support Recovery and destruction of Fluorocarbons DX	In this project, based on the MOU, Osaka City will strengthen the support for policy formulation and efforts to implement the "HCMC Climate Change Action Plan (CCAP)" through policy dialogue and workshops. In addition, based on the achievements of the "JCM Model Projects and Eco Leasing Scheme" formed through past activities, this project will promote the decarbonization dominos in neighboring cities and areas by the expansion of the energy-saving (high-efficiency air-conditioning, boiler, LED lighting, etc.) and renewable energy technologies of Japanese companies. Furthermore, this year, feasibility study will be conducted in new sectors such as fluorocarbon recovery and destruction, waste, and DX to identify projects and study new business models.

番号	Main Proposer	Research-Group	City in Japan	Area/City	Country	Project Name	Field	Project Description
19	NTT Data Institute of Management Consulting, Inc.	City of Kitakyushu, International Environmental Strategies Division, Overseas Environmental Project Department, Environment Bureau/ Nippon Steel Engineering Co., Ltd/ AMITA Corporation/ IRDA(Iskandar Regional Development Authority)	City of Kitakyushu	Iskandar Development Region	Malaysia	Carbon-Free Model Area Development Project (Phase2) (City of Kitakyushu—Iskandar Regional Development Authority Collaboration Project)	Energy Saving Renewable Energy Waste Disposal Support for System Development	Activity 1: Create inter-industry collaboration projects for decarbonization of the industrial sector (Conduct a survey on the status of wastewater and waste heat generation, etc. in candidate industrial parks, as well as on the status of infrastructure development, such as wastewater facilities and pipelines. Selection of candidate companies to participate in the project, formation of a consortium and discussions towards a pilot project). Activity 2: Introduce renewable energy for decarbonization of the consumer sector 1)Introduction of solar PV facilities based on the 100% renewable energy Kitakyushu model 2)Realize Waste-to-Energy as a base-load power source (conduct waste quality surveys at the Seelong Landfill, and upgrade the draft business plan).
20	Japan NUS Co., Ltd.	Ehime Prefecture MIURA CO., LTD. ADVANTEC CO.,LTD.	Ehime Prefecture	Ben Tre Province	Vietnam	City-to-City Collaboration for realizing a decarbonized and circular society by Ehime Prefecture and Ben Tre Province	Energy conservation Renewable energy Wasate management Water quority management Support for legal system configuration	In this project, Ehime Prefecture and local companies with decarbonization technologies will work together to support the formulation of a decarbonization policy and plan for Ben Tre Province, as well as carry out (1) the decarbonization of an industrial park, (2) the derivation of solutions for issues related to waste management, and (3) basic research on water quality analysis related to environmentally friendly aquaculture, as applied for projects. In addition, the project will propose and develop policies and systems to facilitate the selection of Joint Crediting Mechanism (JCM) candidate projects and their implementation, including proposals for future JCM facility subsidy projects.
21	Institute for Global Environmental Strategies	Kitakyushu City West Java Province PT Indocement Tunggal Prakarsa Tbk PT Jababeka Tbk JFE Engineering Corporation Amita Corporation Beetle Engineering Corporation Tokuyama Corporation	Kitakyushu City	West Java Province	Indonesia	Feasibility Study on Decarbonization of Cement Industry in West Java Province, Indonesia	Effective use of energy Waste handling and disposal Renewable energy Energy efficiency Institutional development support	This project, targeting West Java, Indonesia, aims to decarbonize the cement industry through the reduction of CO2 emissions throughout the supply chain. Specifically, feasibility studies will be conducted on (1) the introduction of waste heat recovery power generation facilities at cement plants, (2) the conversion of industrial and general waste into alternative fuel and cement raw material, (3) the introduction of technologies to maximise and optimise the use of alternative fuel and raw material in the cement plants, and (4) the formation of renewable energy and energy-saving projects that contribute to a decarbonised industrial park. In addition, we will update (5) RDF guidelines as support for institutional development.