

INTERVIEW

First Project Financing for Waste to Energy Project in Emirate of Dubai, UAE

Supporting Environmental Infrastructure Business of Japanese Companies

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The Japan Bank for International Cooperation (JBIC) signed in March 2021 a loan agreement in project financing amounting to up to approximately USD452 million (JBIC portion) with Dubai Waste Management Company P.S.C. (DWMC) in the United Arab Emirates (UAE), which is invested in by ITOCHU Corporation, Hitachi Zosen Corporation, and other entities.

The loan is co-financed with Sumitomo Mitsui Banking Corporation, Mizuho Bank, Ltd., Société Générale, KfW IPEX Bank GmbH, Standard Chartered Bank, Crédit Agricole Corporate and Investment Bank, and Siemens Bank GmbH, with a total co-financing amount of approximately USD927 million. Nippon Export and Investment Insurance (NEXI) provides the insurance for part of the loan by the private financial institutions.

Contributing toward “Zero Waste to Bury in Landfills”

In Dubai, most of the country's waste is buried in landfills, and the difficulty to secure plots for landfills is increasing year after year. In order to cope with this difficulty, the government of Dubai aims to reduce the amount of waste being sent to landfills to zero by 2032 and is promoting to utilize more clean energy, including waste to energy.

In this project, DWMC, a special purpose company invested in and founded by ITOCHU Corporation, Hitachi Zosen Corporation, and other entities, will construct, own, and operate a plant (waste treatment capacity of 1.9 million tons/year; power output of 194MW) in the Warsan district, under the concession agreement between DWMC and the Dubai Municipality. The plant will be one of the largest of its kind in the world. DWMC will treat waste and sell the electricity produced by the plant for 35 years. This plant alone will enable the processing of up to 45% of Dubai's current municipal waste generation.

About the significance of the project, Takeuchi says “Waste treatment has become a major social issue around the globe. Simply burying waste leads to global warming because the waste produces greenhouse gases such as methane upon fermentation. So, power plants equipped with highly efficient stoker incinerators are being widely introduced in Japan and Europe. The waste to energy process utilizes the thermal energy produced during the incineration to generate electricity. In Dubai, where natural gases are a major source of power generation, waste to energy, which is clean energy, will be in line with the environment and energy policies of the government of Dubai. This project is also in line with the policies of the government of Japan, which expressed its intention, in the Infrastructure System Overseas Promotion Strategy 2025, to promote orders for high-quality environmental infrastructure systems by Japanese companies, including waste treatment and recycling.”

The Hitachi Zosen group is a leading enterprise in the waste to energy sector, with abundant experience in nearly 1,000 waste treatment plants worldwide, approximately half of which are with power generation facilities. ITOCHU Corporation, too, has participated in multiple waste to energy projects in the United Kingdom, contributing toward approximately 130 million tons of waste treatment per year. The company has started hazardous waste management businesses, as well as waste to energy projects in Serbia and Saudi Arabia.

In order to support business expansion of these Japanese companies, JBIC provided its first project financing for the waste to energy project in the UAE.

Struggling to Structure First Waste to Energy Project Financing and to Analyze Risks

JBIC started to consider the project in 2018, when Hitachi Zosen Corporation and ITOCHU Corporation approached the bank for a loan.

Takeuchi explains the point of the project financing: “Project financing is a financial scheme where the source of repayment is the revenue generated by the project. To structure project financing, a variety of risks need to be assessed, such as the stability of the supply of waste, the sustainability of the quantity and quality of the waste as a fuel, and the security of sustainable income from the waste treatment and power generation, as well as the business risk. In addition, while ordinary project financing has one source of revenue, waste to energy projects have two: waste treatment income and electricity sales. On top of that, the waste supplier and the power purchaser are different entities. So, we made the structure as simple as possible to mitigate the risks that would arise from these factors. In the end, the Dubai Municipality became the contracting party for the supply of waste and power purchase.”

At the end of 2019, when the project financing structure was fixed, risk analysis and contract negotiation started. Takeuchi adds: “I joined the project at this stage, and due to the rapid spread of COVID-19, we had to negotiate mainly on videoconference and email. It was extremely difficult to have the relevant parties understand JBIC's financing policy and to conclude the negotiation of the contract, while organizing the parties' opinions, because the project involves six sponsors, including Dubai government entities, a European company in addition to the Japanese ones, and there are eight lenders, from Japan and other countries.”

The plant is due to be completed in July 2024.

Utilize Established Structure in Middle East and Asia

This project attracts attention of other countries, including the other Emirates of the UAE and Middle Eastern countries with a waste management problem due to their limited land, similar to Dubai.

Takeuchi expresses her aspirations and remarks: “This was a first for JBIC to accept a guarantee by a sub-sovereign entity, the Emirate of Dubai, as JBIC previously had been considering project financing on a government guarantee by the relevant country basis. JBIC's assuming of risks of a sub-sovereign entity such as an emirate will lead to support in increasing waste to energy projects where Japanese companies participate.”

Furthermore, by applying the project financing structure established for this project, JBIC may financially support high-quality environmental infrastructure projects where Japanese companies are involved, including waste treatment and recycling, in the other areas such as Middle Eastern and Asian countries, toward the realization of a decarbonized society.”

* A stoker incinerator is a mechanical system with stepped fire grates (stokers) in the furnace to send combustion air to dry and burn waste. The steam from the flue gas generated from the combustion is collected to generate power.