First Demonstration Project for Industrial Waste Power Generation System in Vietnam

The New Energy and Industrial Technology Development Organization (NEDO) will launch its first demonstration project for an industrial waste power generation system in the Socialist Republic of Vietnam. Under the project, Japanese high-temperature incineration technology, power generation technology as well as environmental protection technology will be comprehensively demonstrated and the effectiveness of such technologies will be exhibited. The objective of the project is to contribute simultaneously to improving the strained energy supply and demand balance and addressing waste disposal issues in Vietnam by promoting the dissemination of these technologies throughout the country.

NEDO, the Ministry of Natural Resources and Environment of the Socialist Republic of Vietnam and the Hanoi People’s Committee concluded a Memorandum of Understanding on July 6, 2012 in order to commence with the implementation of the project.

Project period (tentative): 2012-2014
Disposal capacity: 75 ton/day
Power generation capacity: 1,930 kW
Budget: approx. 2.4 billion yen
(NEDO 1.6 billion yen)
Enterusted company: Hitachi Zosen Corporation
1. **Project Overview**

   In Vietnam, energy shortages, increasing waste volume and environmental pollution have become serious issues as a result of its rapid economic growth, and countermeasures that address these issues have become necessary. In particular, industrial waste generated at Vietnamese industrial parks is not recycled as an energy source and is disposed of in landfills, which raises concern over the possible adverse impact on surrounding areas. Moreover, as the availability of landfill sites is reaching its limit, these issues need to be addressed as quickly as possible by reducing industrial waste volume as well as utilizing industrial waste as an energy source.

   Against this backdrop, the applicability of a waste power generation system using an industrial waste incinerator (rotary kiln stoker furnace: 75 tons/day x 1 unit), which has been widely installed in Japan, will be verified by incinerating industrial waste collected at a disposal site of the Urban Environment Company Ltd. in Nam Son. With the aim of resolving energy and environmental issues in Vietnam, the effectiveness of the system in utilizing an untapped energy source and reducing environmental burdens will be demonstrated.

   As the system includes unique technology that gradually injects combustion air into a rotary kiln stoker furnace for industrial waste, it can stably incinerate various types of industrial waste at high temperatures and meet strict emissions regulations. The system is also equipped with a high-efficiency steam turbine (rated capacity: 1,930 kW) that recovers exhaust heat emitted during the incineration process and generates electricity. This electricity will be consumed at the project site and the residual electricity will be provided to power grids, thereby contributing to the power supply in surrounding areas.

   Using the results obtained through the demonstration of the system, the project aims to promote the system as well as encourage the development and strengthening of regulations related to waste management and environmental protection in Vietnam, including Hanoi. The project also aims to further disseminate these achievements to all ASEAN member nations.

2. **Future Outlook**

   This demonstration project will be carried out until June 2014 in order to collect and assess operational data of the system. Subsequently, follow-up activities, such as monitoring operations, maintenance guidance, seminars and public relations activities, will be conducted for the purpose of promoting the dissemination of the system in Vietnam, including areas near Hanoi, as well as the central and southern parts of the country.
3. **Contact Persons**

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