

Press Release



New Energy and Industrial Technology
Development Organization

<http://www.nedo.go.jp/english/index.html>

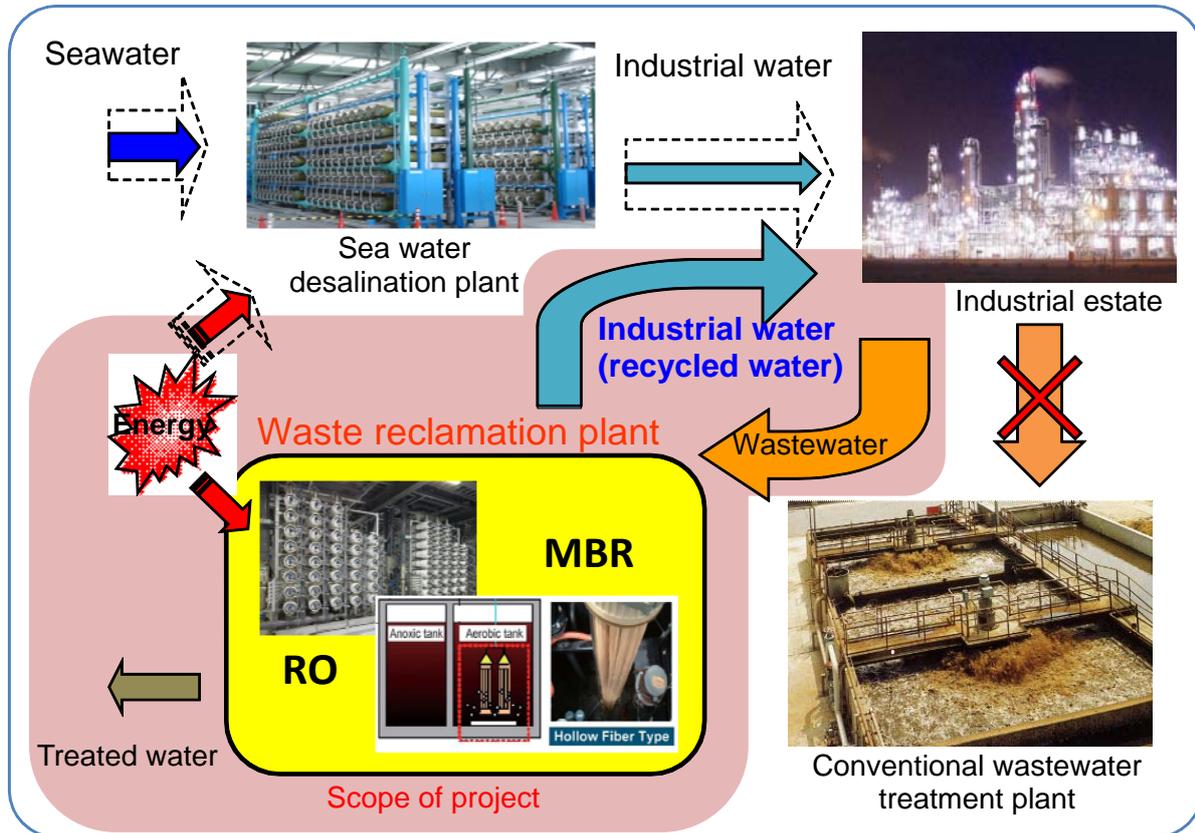
February 1, 2012

Demonstration Project on a Recycling Wastewater System in Saudi Arabia – Aiming at Dissemination of Energy Saving Water Reclamation with Membrane Technology –

The New Energy and Industrial Technology Development Organization (NEDO) and the Saudi Industrial Property Authority (MODON) of The Kingdom of Saudi Arabia signed a memorandum of understanding (MOU) on February 1, 2012 to conduct a demonstration project on energy saving water reclamation with membrane technology.

The project, which aims to contribute to ensuring a stable supply of water resources in water-poor Saudi Arabia, where water recycling systems are not well developed, will demonstrate an energy saving water reclamation system with membrane technology for industrial waste discharged from industrial estates in Saudi Arabia. The project also aims at dissemination of Japanese technologies and systems and is the first project to be carried out between the two countries in this field. NEDO will entrust Chiyoda Corporation to carry out the project.

The MOU was signed by NEDO Chairman Kazuo Furukawa and Dr. Tawfig F. Alrabiah, Chairman of MODON and also Minister of Commerce and Industry, in the presence of Mr. Yukio Edano, Minister of Economy, Trade and Industry, at the Japan-Saudi Business Opportunities Forum.



1. Project Overview

In Saudi Arabia, the development of water resources is an urgent national policy issue as the water supply is becoming tight due to limited indigenous water resources, population growth and economic growth. The amount of recycled water obtained from seawater desalination plants in Saudi Arabia accounts for one-quarter of the world's total, and seawater desalination systems thus play an important role there.

Integrated membrane technology which combines advanced Japanese membrane technologies (MBR and RO membranes) will make it possible to obtain recycled industrial water from industrial waste water discharged by the Dammam 1 Industrial Estate of MODON.

The technology will also contribute to energy conservation in Saudi Arabia as an alternative technology to existing water recycling systems. This is because the technology can reduce energy consumption by approximately 60% compared with a seawater desalination process and approximately 25% compared with a total seawater desalination system.

(1) Technology

The following are the main technologies and equipment that will be introduced in the project:

- **MBR Unit:** A membrane bioreactor decomposes organics using activated sludge and separates sludge from water using immersion type membrane equipment.

- RO Unit: A reverse osmosis membrane, which has a finer membrane than that of an MBR, removes soluble salt and residual material from MBRs.

(2) Project duration

Project period: FY2012 to FY2014 (3 years)

2. Project Process

All the equipment for the project will be installed by 2013. Through data evaluation and examination and then verification of the demonstration, the technology will be disseminated to industrial estates in Saudi Arabia and other countries.

3. Contact Persons

Mr. Yoshinaga, Mr. Dewaki, International Affairs Department, NEDO

Tel: +81-44-520-5190

Mr. Saino, Environment Department, NEDO

Tel: +81-44-520-5251