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No. 3034

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Mitsubishi Electric and Sembcorp Industries to Testbed Novel Ozone Backwashing Energy-Saving Membrane Bioreactor

Will contribute to more compact, energy-saving systems for wastewater treatment and reuse

TOKYO, July 11, 2016 – [Mitsubishi Electric Corporation](#) (TOKYO: 6503) announced today that it will collaborate with Sembcorp Industries Ltd in late-stage testing of its Ozone Backwashing Energy-Saving Membrane Bioreactor (Eco-MBR), a new technology for low-energy wastewater treatment and water recycling. Mitsubishi Electric's novel technology will be testbedded at Sembcorp's water facilities in Singapore ahead of commercial release.

Tests so far have shown that the Eco-MBR is able to achieve a high-quantity flux, or quantity of permeated water per membrane surface area, that is more than twice the rate of conventional MBRs*. The key is regularly backwashing the membranes with highly concentrated ozonated water to remove virtually all organic foulants, thereby increasing membrane permeability. In addition, the Eco-MBR lowers energy consumption by using a reduced flow rate for air bubbles that are emitted from a blower to clean the membrane surfaces. The Eco-MBR also enables the use of fewer membranes, resulting in smaller plant and system footprints.

Sembcorp, a leading developer, owner and operator of industrial and municipal water plants, selected the Eco-MBR based on the promising results of background tests. Testbedding at Sembcorp's water facilities will enable the Eco-MBR's performance to be proven in an industrial setting ahead of its planned commercialization by 2018.

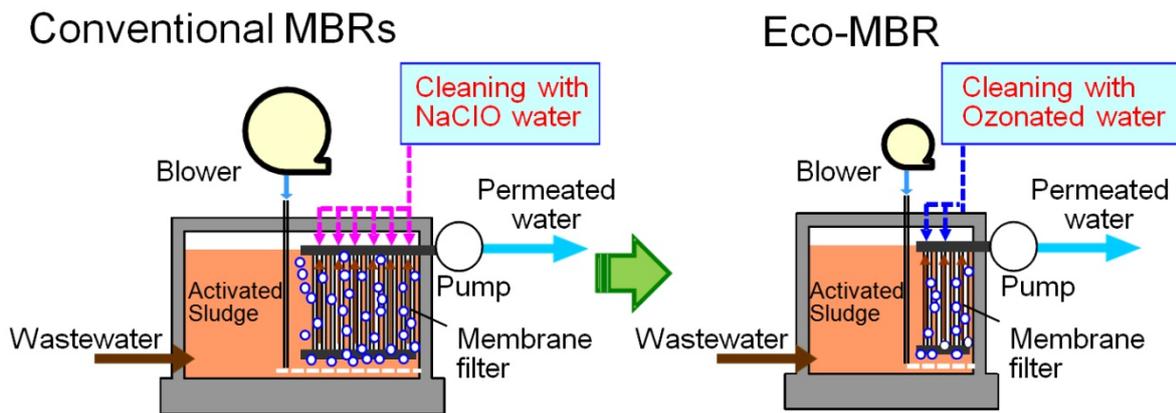
The collaboration between Mitsubishi Electric and Sembcorp will take place under the umbrella of the Sembcorp Industrial Living Lab, an S\$8 million scheme launched by Sembcorp and Singapore's Economic Development Board last year to support the testbedding and commercialization of new R&D projects.

Securing sufficient water resources will be critical in efforts to improve living standards and industrial development worldwide. Building on the technological expertise of more than 1700 delivered ozone generators, Mitsubishi Electric has been developing its high-performance Eco-MBR as a solution for areas around the world that are experiencing increased demand for water.

Due to limited water resources in Singapore, the government and companies such as Sembcorp are successfully applying water-reuse solutions to provide alternative, sustainable supplies of water, especially for industrial use. Currently, Singapore's supply of potable recycled water (known as NEWater) is sufficient to meet 30 percent of the nation's water needs.

Mitsubishi Electric looks forward to continuing to leverage its water recycling systems for sewage and industrial wastewater to contribute to sustainable water recycling worldwide.

*According to Mitsubishi Electric research as of July 11, 2016



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About Mitsubishi Electric Corporation

With over 90 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavors to be a global, leading green company, enriching society with technology. The company recorded consolidated group sales of 4,394.3 billion yen (US\$ 38.8 billion*) in the fiscal year ended March 31, 2016. For more information visit:

www.MitsubishiElectric.com

*At an exchange rate of 113 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2016