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Penang water authority looking at recycling treated sewage water for industrial use



16.3.2023 : WATER RECYCLING IN PENANG. PBAPP SIGNS MoU WITH IWK.

Left to right : En. Mohd Zainal bin Zakaria (Chief Operating Officer, IWK), Mr. Narendran Maniam (Chief Executive Officer, IWK), Ir. Pathmanathan K (Chief Executive Officer, PBAPP & PBA Holdings Bhd) and Dr. Mary Ann Harris (Chief Financial Officer, PBA Group)

GEORGE TOWN, March 17 — Treated sewage water in Penang will soon be recycled for industrial re-use instead of being discharged into the sea after Penang Water Supply Corporation (PBAPP) inked a collaboration with Indah Water Konsortium (IWK).

PBAPP and IWK signed a memorandum of understanding (MoU) with Indah Water Konsortium (IWK) to explore the viability of recycling treated sewage water for industrial re-use.

PBAPP and PBA Holdings Bhd Chief Executive Officer K. Pathmanathan and IWK Chief Executive Officer M. Narendran signed the MoU at the IWK headquarters in Kuala Lumpur yesterday.

“PBAPP discussed the possibilities of water re-cycling for industrial re-use with IWK in April 2022,” said Pathmanathan.

He said PBAPP had since identified three sewage treatment plants (STPs) in Bayan Baru, George Town and Mak Mandin, for an in-depth study.

“The combined treated sewage water discharge from these three STPs is estimated to be 260 million litres per day (MLD),” he said.

In comparison, he said the treated water output from a modern conventional water treatment module in the Sungai Dua Water Treatment Plant is 114 MLD.

“As such, the potential yield from recycling water from these three IWK STPs could be equivalent to the water treatment output of 2.3 conventional water treatment modules in Sungai Dua,” he said.

He said the three STPs were chosen based on three key criteria, strategic locations, potential yield and relative proximity to potential non-domestic category consumers.

Pathmanathan said Penang's biggest challenge right now is the lack of raw water resources.

"If we are able to recycle 260 MLD of treated sewage water for industrial re-use, we will effectively increase PBAPP's maximum water supply capacity in Penang by 260 MLD, per se," he said.

He said the water recycling proposal was PBAPP's commitment to plan ahead for its consumers.

"If it is viable, water recycling in Penang will support the achievement of the Penang2030 vision while further reducing risks of water shortages during extended dry seasons," he said.

He explained that the viability of the proposed water recycling project will be considered in terms of applicable water recycling technology, technical water engineering requirements, potential quality of recycled water, land availability, acceptability of recycled water, consumers' perception, installation of dedicated pipe and pump works and overall costs.

He said there are other smaller STPs that will need to be further studied again for engineering and financial viability.