

New RO system helps metro rail save ₹5L/month by recycling water

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Chennai: A new filter system that recycles water for drinking, washing trains and operating air-conditioners is helping Chennai Metro Rail save ₹5 lakh a month. The system that uses reverse osmosis technology filters water from a borewell and pond located behind metro rail's administration office at Koyambedu.

"We have a 10-metre deep pond that has water through the year. We were using a two-stage system to filter it. Now, we have installed the high capacity RO system, which will filter water from both the pond and the borewell," a metro rail official said.

The system has been installed at a cost of ₹33 lakh.



Built at a cost of ₹33 lakh, the new filter system will help meet the water requirement for washing trains at Koyambedu depot, drinking purposes and operating air-conditioning systems.

"We will recover the cost in less than a year. It will also save us nearly ₹5 lakh every month which we were spending to buy corporation water for the depot, administration office and Koyambedu station alone," he said.

The filtered water is being used to wash trains at the Koyambedu depot, for drinking

purposes and to operate air-conditioning systems at the administration office, a 100-unit housing quarters and the Koyambedu station.

Water released from the air-conditioning system is also being collected and reused for the chiller plant.

"We are collecting nearly 4,000 litres every day. The

condensed water collected from the air-conditioning system has only 10ppm of minerals. It cannot be used for drinking purposes, as it needs to have more than 100ppm. So we are using it to operate air-conditioners," an official said.

"We can use the same system to operate air-conditioning systems in underground stations," he added.

Officials have also attached water filters to taps in metro stations along all corridors of the network on a trial basis, which has reduced water consumption by 41.5%.

"They are low flow taps. It may look like the water is in full flow but the filters control the flow as much as possible," said an official.