

CMRL to recycle water from ACs in stns, use it for drinking

To Set Up System In Central Metro First

TIMES NEWS NETWORK

Chennai: Air-conditioning units in metro rail stations may soon serve a dual purpose—give commuters a respite from the heat and quench their thirst. Chennai Metro Rail Limited (CMRL) is building a new system to pipe the condensed water from the air-handling unit through a series of treatment processes to make it potable. Metro rail has floated tenders to set up the system at Central Metro on a pilot basis.

“We are setting up a system to treat the condensed water and send it to the main tank. Once it is collected in the tank, it could be used for various purposes like rest rooms and other maintenance purposes,” an official said. “For drinking, it has to be treated in our reverse osmosis plant.”

Officials said in 45 days of

COOL MOVE

Metro rail has floated tenders to set up the system at Central Metro on a pilot basis



➤ Around 2 lakh litres of water used at 32 stations every day

➤ Central Metro needs 25,000 litres/day for operations

➤ At present, 4,500 litres are recovered daily from four air-handling units at the station

➤ Collected water is recycled

and used for AC operation

➤ CMRL has floated tender to send the condensed water from the units to the main tank and use it at rest rooms

➤ To make this happen, additional electrical and plumbing work is required

➤ The collected water may also be used for drinking



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awarding the contract, electrical and plumbing work would be done to link the tank that collects condensed water from air-handling units with the main water tank and the reverse osmosis system.

Central Metro, one of the biggest underground transit hubs in the country, consumes around 25,000 litres of water for daily operations. Nearly 70% of it is used for operation of the air-conditioning units. At present, around 4,500 litres of water from air-handling units, which operates for 18 hours a day, are collected, recycled and reused to run the ACs.

“If it’s successful, we will extend it to other stations

where we could recover around 2,000 litres a day,” an official said.

CMRL gets its daily water supply from Metrowater. Due to the prevailing water crisis in the city, CMRL officials began switching off AC units in stations during non-peak hours to cut water consumption.

CMRL also has plans to build 10KLD (kilo litres per day) capacity sewage treatment plant, which is operational only in Guindy station, across all stations. To further reduce its dependency on water, metro rail will be installing a gas-based air conditioning systems in the three underground stations under construction for phase-1 extension line to link north Chennai.

The technology called ‘variable refrigerant flow’ (VRF) will use refrigerants as the cooling medium. To be installed in Washermenpet, Tondiarpet and Korukkupet stations, the new technology, according to CMRL, is energy efficient, requires less space and is less expensive than the existing system. CMRL is planning to adopt the same system in its 118.9km phase-2 project.