



A Metro train from Little Mount entering the underground stretch on Wednesday. More than 5 lakh people travelled in Chennai Metro in the last five days | MARTIN LOUIS

# Metro to try new tech to save water

## When city sleeps, CMRL sites bustle with activity

### Factbox

Chennai Metro is using 20,000 litres of water a day to ensure that the underground stretch remains cool

The Phase I extension will now use gas-based cooling system, thus resulting in less dependence on water to cool the stations

Solar panels to be installed at Saidapet and Chennai Central stations. 400kw solar power to be generated. This will be used for lighting and other purposes in underground stations

One km of elevated stretch costs around ₹150 to ₹200 crore; underground stretch of same distance costs the exchequer ₹400 crore

Only 55 km stretch of second phase will be taken up in 3 parts from July

C SHIVAKUMAR @ Chennai

CHENNAI Metro is now looking at alternate technology to cut down consumption of water in water-stressed Chennai to ensure its underground stretch remains operational in dry days.

The Chennai Metro, which requires 20,000 litres of water a day to ensure air conditioners in the underground stretch remain operational, is now looking at gas-based cooling technology to keep the stations cool.

L Narasim Prasad, Director (Systems and Operations) told *Express* that the new technology is contrary to the chilled water systems where refrigerant is used for cooling or heating the water that is circulated throughout the whole system. "It is a gas-based cooling system and we are implementing it for Phase-I extension," said Prasad. Currently, Chennai Metro is tapping water from Metro Water as well as buying it through tankers. This is costing the metro rail a fortune to run the underground stations. Apart from these sources, Chennai Metro is also looking at treated sewage water to ensure underground metro stations function, said Prasad.

Interestingly, it is not only new coolant technology, but also the new technology in digging tunnels which is now under consideration. As Chennai's soil condition is uneven — at times and at times clay — Chennai Metro is looking at technology wherein machines can be operated for all sort of soil conditions.

Chief general manager V K Singh told *Express* that they may be looking at new specifications of tunnel boring machine in the second phase. "We may be raising this specification with tunnel boring machine manufacturers," he said. The second phase initially will be taken up in three parts. Work will be taken up from July. The priority corridors are IV and V. The V corridor is from Madhavaram Milk Colony to Sholinganallur and IV corridor is from Light House to CMBT which is now being extended by another 15 km to Poonamallee. Initially, only a 55 km stretch will be taken up in three parts and detailed designs are being prepared, said Singh.

On the cost involved, Prasad said that on an average one km of elevated stretch costs around ₹150 to ₹200 crore while one km of underground stretch costs ₹400 crore. Meanwhile, Chennai Metro is planning to instal solar panels at Saidapet and Chennai Central stations. "We will be installing solar panels in the next 10 to 15 days. The panels will generate 400kw of power which will be used for lighting and other purposes. We target to generate 1.25MW of solar power," said Singh and Prasad.

### EXPRESS NEWS SERVICE @ CHENNAI

WHEN the city sleeps, Chennai Metro Rail Limited (CMRL) sites bustle with activity to help realise the Metro dreams of Chennai. "We have only six hours to procure logistics materials at the sites," recalls Chief General Manager of Chennai Metro Rail V K Singh and L Narasim Prasad, Director (Systems and Operations) during their interaction with media.

A total of 7,000 tonnes of steel was used and 12 lakh cubic metre of muck from tunnelling was cleared daily from midnight to 6 am in the morning, they claimed. Currently, work on 26 stations — 13 underground and 13 elevated — had been completed, with 39 to 40 kms being put into operation.

"The concreting is done only on night and challenge is to work where sensitive buildings like schools and colleges are situated," said Singh, claiming that the entire stretch from Washermenpet to AG DMS will be completed by the end of the year.

The most difficult phase was from Madras High Court to Chennai Central and it took 18 months, he recalled. "We had noise barriers near schools and hospitals and were regulating two-lane traffic on EVR Periyar Salai ( Poonamallee High Road) and Anna Salai and it was really difficult," they said.

Interestingly, the hard work has paid off as more than five lakh people have enjoyed the metro rail ride as it was free of cost. While the ridership declined when the payment mode was restarted on Wednesday,

### Central Square contract soon

Chennai: Work on the much-awaited Chennai Central Square is likely to start soon as contract will be awarded in a month or two, according to V K Singh. Catering to five lakh pedestrians per day, Chennai Central is situated at intersection of six rail corridors passing through the city — one MRTS, three suburban and two upcoming Metro rail corridors. The Central square proposal was mooted by Chennai Metro Rail on March 6, 2015 to integrate all existing hubs

some interest among commuters could be seen as enquiries were being made at the counters.

To a query on whether the fares will be cut, Prasad said that Chennai Metro will analyse the ridership and then take a decision. A Metro ride from Chennai Central to Airport costs a commuter ₹70. He also said a decision on extending the timings of Metro rail services is being studied.

Singh said that the talks on integration of MRTS with Chennai Metro is progressing and by the end of the year the process will start as the State was keen.

To a query on when Chennai Metro will open additional exits in Chennai Central, Singh said by next week another entry and exit in Moore Market will be opened.