

SAFI WATER RECYCLING STATION

Pioneering commercial water recycling



Planning



Design



Financing & Regulations



Construction



O&M



Customer Service



Reuse

Overview

With a general reliance on desalination or borehole methods of obtaining water throughout the Middle East, the reuse of water is generally limited to irrigation projects. The environmental benefits of water reuse have not yet been fully exploited in the region. Water demands of Ajman's industrial and commercial businesses were not being met by the public water utility, so the Government of Ajman sought a solution to meet their water demand to ensure continuity of supply to this important growth sector.

BESIX Solution

In partnership with the Ajman Government, BESIX has established a water reuse station which obtains water from the Ajman Sewage Treatment Plant, and through Micro Filtration and Reverse Osmosis processes provides polished water for a variety of industrial and commercial uses 24/7.

Distribution is made through a tanker filling area capable of handling 22 tankers of different capacity simultaneously based on the model of petrol stations. The plant O&M is solely performed by the internal Safi employees.

With an ISO 9001 certified quality management plan and a constant and stringent preventive maintenance, Safi plant is reaching an average 96% availability throughout the year, making Safi a reliable and efficient solution for exigent customers.



10,000 m³/day
Plant Capacity





Key quality parameters of the water produced like TDS (total dissolved solids) are better than many of the commercial bottled waters, making it perfect for exigent industrial usage.

Results & Achievements

A project is 100% funded by private capital that runs on a full cost recovery basis.

The plant is producing a high-water quality level adopted by many industries as a low-cost substitute for ground water for non-drinking purposes. Typical customers are district cooling plants, ready-mix factories, and vessel manufacturers for hydro testing, etc. All have a common requirement of a very low-salinity water that the Safi water quality parameters exceed.

For the government of Ajman, the benefits included closing down industry boreholes, and an additional source of revenue as a co-owner of the water facility. Finally, the Ajman Sewerage Company has reduced its sea discharge, diversified its supply and also monetised its excess TSE.

In 2012, His Highness Sheikh Rashid Bin Humaid Al Nuaimi, accepted on behalf of SAFI, a distinction award for the best water reuse project by Global Water Intelligence, highlighting the benefits to both environment and the population of Ajman.



Distinction Award

Best Water Reuse Project of the year 2012 - Global Water Intelligence

