

## **Qatar Cool Active in Safeguarding Qatar's Natural Resources**

Qatar District Cooling Company 'Qatar Cool' have been working diligently with authorities over the past two years, in line with the National Conservation Plan, to convert from potable water in the operations of the cooling plants, West Bay, to Treated Sewage Effluent (TSE).

Qatar Cool have achieved the migration from potable water to TSE as the makeup water source for the two operational plants in West Bay. The migration came with several challenges as the plants were operational and designed for potable water as the makeup water source for generating the cooling. The space constraints and limited power issues were resolved by opting for Direct TSE use, instead of Polished TSE, which needs a Reverse Osmosis (RO) plant. The impact on the plants equipment was assessed by implementing a TSE introduction program in gradual phases which consisted of blending the TSE with potable water and increasing the blending ratio gradually over a period of 1.5 years.

During the TSE introduction phases a stringent water treatment program and analysis was used to make the TSE introduction a success. There was close monitoring of the TSE makeup and blow down water quality to ensure compliance with the environmental regulations, as well as continuous coordination with local authorities, to address any quality and quantity issues that may have arisen.

Qatar Cool has now successfully migrated to 100% TSE, thereby minimizing the use and need of potable water in the operations. The reduction achieved in potable water consumption over the past 18 months is 1.7 Million M<sup>3</sup>.

Yasser Al Jaidah comments on the water situation in Qatar and the need for TSE "Qatar is outgrowing its resources rapidly, causing a serious need for alternatives. With the National Conservation Plan if full swing in such industries as District Cooling there is a need for TSE to be further considered for reuse in high demand industries, such as agricultural and industrial sectors. TSE and waste water have remarkable potential and benefits in supplementing the water demand, in such industries. Provided the TSE quality meets the water quality and quantity requirements for the nature of the system. Generation of TSE is significantly economical and consumes less energy compared to potable water. Qatar Cool are seeing the benefits of switching to TSE and anticipate the positive long term effects. We will continue to be a sustainable resolution for Qatar and fully back any endeavor which fortifies the countries National Vision and future."

Al Jaidah continues "Water resources in the Middle East are scarce, with the climatic conditions and lack of surface water in the region, the need for alternative sustainable solutions is at an all-time high. With the escalating urban population and development in Qatar, the demand for desalinated water is snowballing, thus putting pressure on the diminutive water resources which will lead to water shortages. Industries alike need to act now to shield our resources and ensure a prosperous future for our future generations."