

Organisations Category

Project Owner (Public Sector)

Gold Award

Water Supplies Department,
the Government of the Hong Kong Special Administrative Region, China



Design, Build and Operate First Stage of Tseung Kwan O Desalination Plant

The first stage of Tseung Kwan O desalination plant (“the Project”) is the first municipal seawater desalination plant using Reverse Osmosis technology to remove dissolved salts and impurities from seawater and turns it into drinking water. The Project has adopted a diverse range of innovative technologies and construction approaches such as BIM and DfMA to uplift productivity, team collaboration and workplace safety during construction, while enhancing the quality and sustainability throughout the whole project life cycle.



Sustainable Best Practice 1

The Project has implemented a series of energy conservation measures for continuous improvement in energy saving, including effective energy management system, high efficient water cooled chiller and renewable energy system. Around 1,800 solar panels will be installed on the roofs of buildings that could save 16.2% of energy consumption for building services. WSD is planning a large-scale solar farm with 19,000 solar panels at the South East New Territories Landfill nearby to provide 10 Mega-watt renewable energy for the plant.

Sustainable Best Practice 2

The Project has adopted over 40% of Design for Manufacture and Assembly (DfMA), MiC and MiMEP in Civil and E&M construction works, including precast external wall panels and Inspection Corridor and also E&M works including RO racks. They offer better quality control, enhanced worker safety and speed of project delivery, and waste minimisation onsite.



Sustainable Best Practice 3

To promote recycling and sustainable practices to young generation and community, Project Team organised a series of outreach activities to schools including collaboration with some primary students to build small wooden hut with woods recycled from our site for recreational use. We also collaborated with shopping malls to display wooden tables, chairs and decorations that were made from wasted wood, bringing an upcycling message to public members.