

## About Swire Coca-Cola Group

Swire Coca-Cola (SCC) is one of the world's largest Coca-Cola bottling partners, with a global footprint spanning from the US to Greater China. A strategic partner of The Coca-Cola Company since 1965, SCC manufactures, distributes, and markets over 1,700 million unit cases of still and sparkling drinks annually throughout Hong Kong, China, Taiwan, and US franchise territories.

We currently have 19 bottling plants in our Chinese Mainland territory and 8 other bottling plants spanned across Hong Kong, Taiwan and the U.S. We also have strong connections with our regional co-packers and peer bottlers. SCC is also part of the Coca-Cola Company System (which involves approximately 225 bottling partners in over 200 countries and territories) to which we share our project experience from time to time.

SCC has the exclusive right to manufacture, market and distribute products of The Coca-Cola Company in 11 provinces and the Shanghai Municipality in the Chinese mainland; as well as in the HKSAR, Taiwan region and an extensive area of the western USA. SCC's 26 production facilities in Greater China and the USA produce and distribute over 60 beverage brands to 741 million people.

As we provide quality products and services to customers, we have not forgotten to strive to minimise the environmental impact of our activities and carefully consider the needs of our community. We continue to invest in sustainable development to achieve long-term growth through innovation and improved efficiency.

To achieve its sustainability targets, SCC is now seeking monitoring and analysis solutions of water consumption (and if possible, water microbial level) in its bottling plants.

***For further details of SCC's sustainability endeavors, please visit:  
<https://www.swirecocola.com/en/Sustainability.html>***

### ***Problem Statement***

*To reduce overall water consumption within an industrial facility (beverage bottling plant) through real time monitoring that enables response to water efficiency improvement opportunities.*

### ***Aims***

Swire Pacific Sustainable Development (SD) Fund Challenge Process, invites innovators to submit a new solution to be trialled with the intention of implementing and scaling to other sites with similar problems.

- To discover improvements in water use efficiency within bottling plants, the company is

seeking solutions that can help more efficiently and rapidly monitor and analyse water consumption (and if possible, water microbial level) of plant operations. These monitoring solutions can include but are not limited to:

- Water-level Sensors with automated control and regulation of key water tanks, cooling towers, etc.
  - Meter-compatible solutions
  - Predictive/AI and cloud-based technologies
  - IoT water monitoring and analysis networks
  - Hardware-agnostic software services
  - Innovative SCADA systems
- SCC has a strong desire for IoT solutions in particular with real-time water consumption data and monitoring capabilities.
  - Solution providers would work mainly with technical and EHS teams at the Chinese Mainland bottling plant.
  - Other key considerations include: easy installation and preferably compatible to our existing system, ability to provide local and timely support, simplified Chinese user interface, reasonable cost, compliance with our IT policies and must not affect our productivity.
  - The pilot project will likely be conducted in one or two SCC's manufacturing sites in the Chinese Mainland. It will cover all water usage within the site boundary. We expect the pilot to bring about capability to strategically identify and realise water efficiency opportunities with the goal to reduce SCC's overall water usage ratio.

### ***Problem Background***

The company's existing bottling plants have extensive existing water meters to capture data (primary, secondary, and tertiary water submeters have been installed at each bottling plant), but these meters are not interconnected into one system (IoT) and right now rely on manual meter reading to process data. As such, data collection, analysis and management have been difficult, inefficient and error prone, measurements of key water quality parameters and analysis can only be done on a daily basis at most, and delays in data collection have hindered investigation and rectification of water management issues. Water rate is rather low in operating regions, making it difficult to justify water efficiency investments.

The ideal solution would work to upgrade the existing water meter system in the plants, either through a complete overhaul or (preferably) by retrofitting to existing meters. Solutions should be able to create an interconnected meter system with real-time data and generate reports on water usage and consumption and if possible, also on incoming water microbial level to help illuminate overall water consumption/contamination and any inefficiencies in the plants.

Being the largest water user within Swire Pacific, this SCC pilot is first of its kind and the experience will be leveraged to support the development of similar projects at other Opcos, especially as digital metering solution is widely applicable to various industries.