24 June 2021 (Thursday)

7.00pm-8.30pm (SGT) (GMT +8)
Session 1.3 – Water Conservation and Efficiency Measures

Session Chair(s): Darryl Day, The Peter Cullen Water and Environment Trust (Australia)

Sustainable Water Conservation In Brisbane

D. Brooker. Queensland Urban Utilities (Australia)
Presenter is an invited speaker. No executive summary is available.

Efficiency And Commitment: Guaranteeing The Sustainability Of Water Supply In The Future

FJ. Fernández, N. San Román. Canal de Isabel II, S.A. (Spain)

Climate change and population growth is currently threatening the sustainability of water supply for the 6.5 million people in the region of Madrid. Canal de Isabel II, S.A., the company that manages the water cycle as a whole in the region, has set out an ambitious plan aimed at guaranteeing supply, with a holistic approach ranging from the use of reclaimed water to customer engagement and loss minimisation, in which cutting-edge technologies play a major role. Additionally, the company has a progressive and seasonal tariff that strongly discourages excessive consumption and a unique model based upon centralised planning, design, operation and management of water infrastructures and resources throughout the region for all its 179 municipalities. As a result, the company has managed to reduce global demand per-head by 32% over the last 14 years and has set a further target representing a 25% reduction by 2030.

Using Data Science to Drive Water Utility Decisions: A Case Study in a Medium-Sized Utility

C. Boyle, J. Poff. Xylem (United States)

A common dilemma faced by water utilities interested in proactive apparent water loss control is (a) how to manage the overwhelming volume of data and (b) how to glean value-added insight in a timely manner from the data? Xylem partnered with Clayton County Water Authority in Georgia to answer these two questions. The project covered 3 phases and continues to run today, now in the third year of deployment. It leverages 5 years of historical billing, meter, and customer information data, ongoing data updates, and Xylem's Hidden Revenue Locator apparent loss technology, built off data science methodologies, to identify apparent loss issues on a monthly basis. Utility staff from IT, Meter Services, and Customer Services were instrumental in investigating the flags prioritized and presented in the dashboard, and resolving issues. This presentation will show that data science can be used to efficiently locate apparent loss issues, and also share how Clayton County Water Authority have been able to operationalise these outputs and tackle their meter under-registration issues in a proactive manner to meet revenue assurance and operational process efficiency.

Incorporating Behaviour Insights in Smart Water Meters Programme

S. Seah, I. Toh, S. Koh, H. Ang, HH. Koh. Public Utitlities Board (Singapore)

We tested the effect of using behavioural insights to reduce household water consumption via a water-tracking app linked to households' smart water meters. As a follow-up to a smart metering customer engagement pilot in 2017 and 2018, PUB and SUEZ partnered BIT in 2019 to conduct a new trial to use behavioural insights to enhance long-term customer engagement strategies. This trial specifically aims to decrease household water consumption and reduce the amount of time households take to fix leaks. The primary behavioural principles tested are: (i) making relevant social comparisons; (ii) helping households close the intention-action gap; (iii) reducing friction costs, and; (iv) personalisation. These behavioural insights were operationalized in the form of new app features such as a graph comparing the household's water consumption to their neighbours', a goal-setting feature to encourage households to practice water-saving behaviours, and a list of nearby plumbers available within the app.