

Making a difference in a world, where every water drop counts

Quality, availability, and efficiency at the core of our projects

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WATER QUALITY

Nashville, USA: Driving water availability for the city growing population

Already serving 250 thousand customers and with a population expected to increase by 50% by 2045, Metro Water Services (MWS), a department of the Metropolitan Government of Nashville and Davidson County, needed a solution that ensured water reliability and infrastructure. ABB was brought on board to give operators complete real time visibility over a new wastewater facility that will process up to 440 million gallons of water per day. Additionally, ABB will provide control system optimization via a second, 800xA control system that will standardize all MWS water and wastewater operations, and will upgrade all drives, instrumentation, and electrical components.

 [Read more](#)

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WATER AVAILABILITY

Derbyshire, UK: Resilient water supply for millions of customers

Severn Trent relies on 24/7 availability of power for its Melbourne water treatment works (WTW), which supplies water for one million residential, commercial and industrial customers in the Leicestershire area. Voltage disturbances from the grid can interrupt the water treatment process and can take eight hours to resolve, during which the site cannot supply water. Therefore, any voltage disturbance can lose one third of the site's 240 megalitres per day (Ml/d) production. ABB stepped in to deliver state-of-the-art equipment that overcame power stability issues at Melbourne to ensure resilient water supply, prompting the utility to order four additional units.

 [Read the story](#)

3

SMART CITIES

Venice, Italy: Successfully safeguarding UNESCO world heritage Center and ensuring daily safety and security of local citizens and their businesses

The MOSE flood barrier system is a complex coastal protection infrastructure designed to block the high tides that regularly hit the Venetian lagoon, causing destruction to the city reliant on income from tourism to the World Heritage site. ABB has delivered an advanced automation system that coordinates the entire flood protection system. It, in tandem with ABB's 2600T series pressure, manages and monitors the raising and lowering of the MOSE flood barriers according to pre-set parameters, positioning the barriers at more appropriate angles to counteract the flow of the incoming water.

 [Visit the portal](#)

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FARMING & IRRIGATION

Toshka, Egypt: Tackle drought in agriculture

ABB provided several key technical solutions to deliver electric power reliably and continuously to kickstart the development plan for Toshka's new agricultural area in the South Valley in Egypt. Deliveries included medium voltage primary and secondary switchgear, UniGear and UniSec, along with compact substations for the first three phases of the project. ABB also delivered complete solutions to provide reliable, energy-efficient operation for the project's 57 pumping stations.

 [Read the article](#)

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Koppal, India: Preventing water shortages and ensuring availability of water to over 600,000 residents

With a population of over 600,000 people, the Koppal district is regularly challenged by water shortages and needed solutions that could effectively monitor water flow and manage leaks. Until now, responses have ranged from preserving ancient wells to following age-old water conservation practices, but thanks to digital technologies, the Kushtagi and Yelburga villages will soon benefit from ABB's digital water management solutions as part of a multi-village clean drinking water scheme. The project brings clean treated river water across a network of remote terminal units and pumping stations leveraging ABB Ability™ Symphony® Plus SCADA to supervise and control the operation. ABB's AquaMaster 4 electromagnetic flowmeters help monitor and analyze daily flow consumption patterns, offering flow measurement accuracy reliability even at the smallest velocities

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FARMING & IRRIGATION

India: Mahatma Gandhi Kalwakurthy Lift Irrigation Scheme

Due to severe drought in the Mahbubnagar region in the state of Telangana in India farming and livelihood for more than 300 villages was suffering. To solve this problem the state set out to transport water from the Krishna river to the Telangana state. Water was pumped to a reservoir nearly 300 meter above the level of the Krishna river. ABB supplied medium voltage Motors and LCI drives supported by domain expertise to ensure reliable pumping of the water. One pump moves 23,000 liter of water per second. Helping this way to the region ensure reach sustainability targets.

 [Read the story](#) and [watch the video](#)

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DRINKING WATER

China: Wanjiashai Yellow River Water Diversion Project

In order to resolve the challenge with freshwater scarcity in the Shanxi Province and the Beijing-Tianjing-Hebei region the Chinese government commissioned the Wanjiashai Yellow River Water Diversion Project. The project has the aim to transports water from the Yellow river to the regions situated on a level that is 636 meters higher. ABB supplied medium voltage motors and medium voltage LCI drives to ensure energy efficient and reliable pumping of freshwater for local economic and social development needs.

 [Read the story](#) to find out more

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WATER QUALITY & AVAILABILITY

Singapore: Ensuring water security through the reclamation of used water for one of the world's most water-stressed nations

Singapore is investing heavily in technology that will help it provide its growing population with high-quality water in the future. With a treatment capacity of 800,000m³ per day – enough to fill over 300 Olympic-size swimming pools – the Tuas Water Reclamation Plant will receive used water flows and apply membrane bioreactor (MBR) technology to treat and purify 650,000m³/day of domestic used water to generate NEWater. Leveraging its ABB Ability™ 800xA control platform and Supervisory Control and Data Acquisition (SCADA), ABB is deploying process control systems across multiple facilities at the site, enabling operators on site to gain complete visibility of operations and access to all process data to take decisions that optimize performance and efficiency in real time.

 [Read more](#)

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DRINKING WATER

Australia: Measuring Melbourne water fluoride levels

In Melbourne, Australia, as in many other parts of the world, fluoride is added to public water supplies to improve dental health. Melbourne Water is responsible for ensuring fluoride levels are correct in the more than 400 billion liters of water it supplies annually to customers. If fluoride levels are too high, the results can harm the population's health so precision analyzers are required to ensure fluoridation levels are carefully monitored and controlled.

 [Download the case study](#)