

AI-Powered Smart Metre Project Launched to Boost Water Efficiency in Abu Dhabi Agriculture

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The Abu Dhabi Department of Energy, in collaboration with the Abu Dhabi Agriculture and Food Safety Authority (ADAFSA), has launched the Smart Metre Project in the Al Wathba area, marking a significant step in the emirate's drive to enhance water-use efficiency and support sustainable agriculture through artificial intelligence and digital monitoring.

The initiative integrates AI-powered smart metres with advanced data analytics to improve how water is distributed and consumed across agricultural holdings. By providing farmers with real-time insights into water usage, the project aims to boost productivity while reducing waste and inefficient resource use.

At the core of the initiative is the connection of smart metres to the Department of Energy's digital platform, AD.WE. This integration enhances the accuracy of water consumption measurement and monitoring on farms, enabling data-driven decision-making and supporting long-term resource sustainability.

The project follows a successful pilot phase involving a limited number of farms and has now been rolled out to 80 farms in Al Wathba. Further expansion is planned, with the initiative set to cover 130 farms in Al Nahda and approximately 2,500 farms in Al Rahba.

Eng. Ahmed Mohammed Al Rumaithi, Undersecretary of the Abu Dhabi Department of Energy, said, "The Smart Metre Project in Al Wathba is a flagship example of how innovation and collaboration can drive more efficient resource management. By applying AI technologies and data-driven insights, we are

reshaping water management in the agricultural sector to ensure this vital resource is used as efficiently as possible.”

He added that the project reinforces Abu Dhabi’s commitment to food and water security, while enabling farmers and local communities to adopt smarter and more sustainable agricultural practices.

Dr. Tariq Ahmed Al Ameri, Acting Director-General of ADAFSA, said: “The Smart Meter Project in Al Wathba marks a pivotal step toward developing a smart-agriculture ecosystem. It provides farmers with accurate, real-time information on water consumption, helping them improve resource management and enhance operational efficiency.”

Together, the Department of Energy and ADAFSA view the Smart Metre Project as a scalable model for modernising agricultural water management across Abu Dhabi, aligning innovation with sustainability and long-term resilience.