

Executive Summary

Overview

WaWiCo is a technology company focused on developing intelligent and intuitive water metering and leak detection solutions for the household consumer. Unlike competing products, WaWiCo metering systems are affordable to consumers, and offer precise water usage data for an entire piping network without any professional plumbing work. The proprietary, patent-pending technology behind WaWiCo's metering systems was tested for nearly ten years prior to the company's incorporation in August of 2019. Within the same month WaWiCo was selected from a pool of smart-home tech startups to showcase its technology at the Las Vegas Consumer Electronics Show in January of 2020.

Problem

The need for intelligent water management is palpable to Californians and communities throughout the world where water scarcity endures. Thus, the moral imperative to offer an affordable water metering solution is clear, and while subsequently there are many market options for a "water meter," almost all these products are limited in scope offering tenuous at best water awareness to consumers. The competing products are either mechanical water displacement meters of cost-prohibitive ultrasound systems. The former cannot capture water usage upstream from the installation point, and the latter is unaffordable to household consumers. Existing leak detection products are limited to monitoring only a portion of the household. Comprehensive leak detection using this competitor tech would require dozens if not hundreds of sensors. These key problems are solved by a single unit of WaWiCo's proprietary turnkey AQUA system.

Solution

WaWiCo provides turnkey and easy-to-install water metering systems that can comprehensively capture precise household water usage by facility type, and additionally detect leaks anywhere in the water supply network within minutes and alert the end-user via text, email or call. This proprietary technology has no moving parts and is never in direct contact with the fluid it measures, maximizing reliability and product lifespan. WaWiCo meters can be installed onto all standard pipe diameters and works with all pipe materials including copper, PVC, PEX and galvanized steel. WaWiCo's technology enables turnkey water metering at a production per unit cost under \$20 in volume, dramatically undercutting competing products on the market. WaWiCo's technology includes an embedded system with a front-end GUI and web-app to process and stream the data to a computer or mobile device. The technology and process behind the AQUA system were submitted in a utility patent in August 2018 and is expected to clear in early 2020.

Opportunity

According to a published 2019 MarketWatch forecast, the smart water meter market approached 12 million units delivered and is expected to exceed 22 million units by 2023, at a compound annual growth rate of 11.2% from 2019 to 2023. None of these units shipped utilize the technology or process developed by WaWiCo. Most of the meters captured within the scope of this

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MarketWatch study were mechanical meters i.e. systems that necessitate “in series” connection and are inherently incapable of metering water usage upstream from the installation point.

Key companies in the smart water meter market have focused development on communication systems rather than the fundamental technology that measures the water flow. This should indicate a collective unawareness amongst dominant market OEMs that would maximize the value of WaWiCo’s proprietary, patent pending technology.

Due to the cost-prohibitive alternative technology and the necessity of professional plumbing work during installation of these alternatives, the consumer market has been largely unaddressed in terms of comprehensive water metering and specifically smart meters with IoT connectivity. And considering the prolific growth of smart home products available to consumers, an affordable IoT enabled water meter capable of measuring usage throughout the entire household would be a welcome addition for end-user consumers and big box stores such as Home Depot and Lowes that sell smart home devices.

Additional market opportunity for WaWiCo’s technology exists in the home insurance and security segments. Home security companies such as ADT have invested in mobile smart device integration and could benefit by either licensing or purchasing this patent pending technology. Many home insurance and security companies provide leak detection systems that use rudimentary humidity or impact sensors to detect a water leak above. In other words, home security and insurance companies have already articulated motivations to add water metering to their mobile sensor platforms.

Team

Karl Gramespacher, CEO & Founder: Karl holds a B.Sc. in Mechanical Engineering from UCSD and most recently studied at USC to complete a M.Sc. in Mechanical Engineering with a focus on sustainable energy conversion systems. Following his undergraduate career, Karl started working at Flux Power in 2011, a lithium-ion battery systems startup. In his eight-year tenure at Flux Power, Karl was a key resource in rebranding the failing eV systems integrator to an industry leading cash-flow positive OEM provider of turnkey industrial lithium-ion battery systems to dozens of Fortune 500 companies. Karl resigned from Flux Power in August 2019, holding the position of Principal Systems Engineer, to focus on WaWiCo.

Max Gramespacher, Inventor & Co-Founder: Max holds a degree in Nautical Science and worked in the maritime industry for nearly twenty years reaching the position of first officer before co-founding a software company in Germany. Over the past ten years he has focused on the development of a new kind of water meter. Max is the principal inventor of the proprietary technology behind WaWiCo’s water metering solution.

Chris Dipsia, Interim Director of Business Development: Chris holds degrees in Economics and Biology from UCSD. Following his undergraduate career Chris climbed the ranks at a prominent recruiting company focused on engineering staffing. His core competencies are business development, sales and marketing.