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Apator Metrix will provide one million smart gas meters with the Phoenix-RTOS operating system in one of the largest implementations of smart metering in Europe.

Apator Metrix from Apator Group, a leading European manufacturer of gas meters, will deliver one million iSMART2 gas meters as part of the tender for the mass implementation of smart meters in Belgium. The devices are based on Phoenix-RTOS, an open, scalable, real-time operating system for the Internet of Things (Edge-IoT) devices. The system has been developed by Phoenix Systems - a company from the Atende Group, offering a portfolio of innovative programming solutions in the field of Smart Grid.

The tender was organized by the Belgian energy concern Fluvius System Operator cv, representing the Belgian electricity, gas and water network operators ORES, RESA and Sibelga. As part of the tender, Landis+Gyr's offer was selected for the delivery of a comprehensive Data-as-a-Service (DaaS) solution, consisting of a central system complemented with smart electricity and gas meters. Apator Metrix, as a partner of Landis + Gyr, will be responsible for the delivery of iSMART2 smart gas meters with Phoenix-RTOS based firmware. The software of the gas meter has been developed for many years and is the result of the cooperation between Apator Metrix and Phoenix Systems. The total value of iSMART2 gas meters delivered by Apator Metrix will amount to EUR 65 million (PLN 300 million according to the average exchange rate of the National Bank of Poland of 23.07.2021). The estimated revenue of Phoenix Systems from the execution of the contract will amount to approximately EUR 2 million. The implementation is scheduled for years 2023-2031.

"This project is the largest implementation of a comprehensive multi-energy solution currently underway in Europe. I am glad that we can be a part of it. Apator Metrix is a recognized supplier of modern measurement technologies on the developed markets of Western Europe. In addition to the Belgian market, our smart gas meters are being used in gas networks of Netherlands, Great Britain and Poland. Smart gas meters are modern microcomputers connected to the network. Thanks to extensive cooperation with technological partners, these devices have been designed to ensure precise and safe operation. Advanced automation and robotization of manufacturing lines guarantee high-quality products, as well as reliable deliveries"- said Karol Kozłowski, Business Development Director of Apator Metrix.

iSMART2 is a new generation of smart gas meters, designed by Polish engineers and produced in the Apator Metrix plant in Tczew. It combines a new generation electronic index with a reliable and robust diaphragm gas meter, the design of which is based on over 70 years of experience of Apator Group in the design and production of metering solutions for gas networks. The gas meter encodes the rotation of the mechanical gas meter using a patented solution based on ultra-low power semiconductor sensors. The use of double sensors allows for accurate detection and measurement of gas flow, its fluctuations and reverse flow. The product has a wide range of functionalities, including encrypted remote two-way communication, integrated gas shut-off valve, graphical user interface and FOTA functionality (Firmware-Over-The-Air). The use of the open real-time operating system Phoenix-RTOS provides the possibility of further expansion of the functionality of the device, its flexibility and security.

"The Phoenix-RTOS operating system was designed to empower modular and scalable solutions and to simplify the implementation of Edge-IoT. Therefore it is an excellent firmware platform for iSMART2 smart gas meter. I am very pleased that the combination of the Apator Metrix and Phoenix Systems know-how brought the first contract of such a large scale in the Smart Gas Metering sector. This confirms that Polish technologies for the IoT sector, including the Smart Grid industry, have global innovative potential. The project is an example of strategic cooperation between Apator and Atende Groups, which should be of particular importance in the light of the currently planned implementations of smart meters on the Polish market"- says Kaja Swat, Vice President of Phoenix Systems.

For many years both Polish technology companies have been co-creating intelligent solutions for the energy sector. As a result of the cooperation of the Apator Group companies with Phoenix Systems, the intelligent iSMART gas meter has been created, based on the Phoenix-RTOS operating system. Currently, contracts for the delivery of 20,000 devices of this type are being implemented for the Polish Gas Distribution Group (Polska Spółka Gazownictwa). The companies are also cooperating in the production of the Data Concentrator Unit with Balancing Meter Functionality contracted for Energa-Operator, as well as a next generation electricity meter designed for modern smart metering systems and energy communities.

Apator Metrix

Apator Metrix S.A. is one of the largest producers and suppliers of high-class gas meters in Poland and Europe. Together with the subsidiaries, it forms one of the three business pillars of Apator Group - the gas segment. For years, the company has maintained a high position on export markets, generating over 70% of export revenues and providing its solutions, among others to Great Britain, Belgium, the Netherlands and Germany. The company's achievements include nearly 22 million residential gas meters and 340,000 industrial gas meters operated in many regions of the world. Apator Metrix employs approx. 500 qualified employees, and in its modern, automated production plant, it produces annually approx. 2 million gas meters. The company's offer includes household and industrial bellows gas meters, both intelligent, with remote reading and traditional, mechanical ones.

Phoenix Systems

Phoenix Systems sp. z o.o. is a company belonging to the Atende S.A. capital group, which created and develops the Phoenix-RTOS open operating system for the Internet of Things (IoT). The Phoenix-RTOS system is used in data concentrators and smart electricity and gas meters used on the Smart Utility market (48,000 manufactured and implemented devices). The company is currently working on a new version of the operating system for aerospace applications (compliant with the requirements of DO-178C) and plans to implement the system in other sectors of the Internet of Things market – microsatellites, electric vehicles and modern high-reliability medical devices (e.g. bionics arm).