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WAPA's Troubled AMI System Faces Overhaul, Federal Funding and Private Partnerships Considered

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At the May 9 meeting of the V.I. Public Services Commission, the focus shifted to the state of the V.I. Water and Power Authority's Automated Metering Infrastructure (AMI), which is supposed to read utility meters without the need for human intervention. WAPA discussed ongoing issues with the AMI and future solutions for the beleaguered system at the meeting.

The PSC regulates utilities including electric, potable water, telephone, cable TV, and ferryboat services, discussed ongoing issues and future solutions for the beleaguered AMI system.

The AMI system installation began in 2013, funded by a low-cost loan from the Rural Utility Service. However, the 2017 storms dealt a significant blow to the nearly completed infrastructure, leading to widespread meter damage and system degradation. The current failure rate stands at

around 1,000 meters per month, with the read rate at just over 60 percent, far below the industry standard of 99 percent for functional AMI systems.

In response to these challenges, FEMA requested WAPA to commission a third-party analysis. The vendor, known for advising utilities like Eversource and Con Edison, identified the primary failure source of the AMI as the degradation of capacitors in the meters, primarily due to temperature fluctuations. The communication system of the meters also struggles due to increased background noise in the radio frequency, compromising the meters' ability to communicate effectively.

The vendor's proposed solution involves a full replacement of the AMI system, including meters and the communication system. The new meters, equipped with dual communication technologies such as cellular or WiFi, would provide redundancy and easier setup. WAPA is considering an RFP process for this overhaul, with hopes of securing federal funding, according to CEO Andrew Smith.

WAPA is also contemplating adopting the popular "AMI as a service" model, which guarantees a read rate of over 99 percent and offloads the responsibility of meter maintenance to the AMI provider. This shift would allow WAPA to focus on its primary role as a utility provider.

Further, WAPA considering partnering with AMI providers like Landis and Sensus, eliminating the need for federal funding. These companies have shown interest in expanding their business into the Caribbean Basin, presenting a unique opportunity for the region.

A significant challenge discussed was the long lead time required for securing metering equipment, which could take from 30 to 52 weeks depending on the provider. Additionally, the unique infrastructure of the Virgin Islands might not allow for the quick installation times seen in mainland subdivisions.

Mr. Smith said WAPA aims to finalize a solution and contract by year-end, with a possible "sliding scale" model to vary the number of daily meter installations based on available resources and costs.

The meeting also addressed the past issues with the initial AMI system, a \$12 to \$14 million investment which never achieved its promoted capabilities. WAPA expressed its commitment to ensuring a more efficient and cost-effective transition to AMI this time around. WAPA did not provide a specific figure for the cost of the new AMI system, citing the need for quotes and the upcoming RFP process.