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Veritone Extends Its Technology Lead In Renewable Energy Optimization With Three New Patents

Patented technology enables industry-transforming, dynamic battery synchronization and control for optimal battery operation and longevity

COSTA MESA, Calif.--(BUSINESS WIRE)-- Veritone, Inc. (Nasdaq: VERI), the creator of the world's first operating system for artificial intelligence, aiWARE™, today announced that it has received three new patents for its battery control technology, bringing the total number of issued patents covering its Veritone Energy Solutions to 13, with another 16 patent applications pending.

This press release features multimedia. View the full release here: https://www.businesswire.com/news/home/20201119005253/en/

Veritone received three new patents for its energy solutions, enabling industry-transforming, dynamic battery synchronization and control for optimal battery operation and longevity. (Graphic: Business Wire)

The new patented technologies enable dynamic, real-time synchronization and control of batteries to ensure optimal power distribution and battery life, helping to enable a reliable, cost-efficient green energy grid. The technologies empower utilities, independent service providers and battery providers with ground-breaking ways to address the very real Distributed Energy Resource (DER) integration challenges of suboptimal battery operation, overheating and failures that introduce safety concerns and cost companies millions in equipment damage each year.

"As the world transitions to renewable energy, whether it be wind, solar, or hydroelectric, the unpredictable nature of these green energy sources and the resulting energy supply and demand imbalances must be resolved if we are to achieve our green energy goals," said Chad Steelberg, CEO of Veritone. "While deploying batteries to provide energy storage and smoothing seems like an obvious and simple solution, the technical hurdles to accomplish it

at scale in the real-world are challenging. AI-based battery control and synchronization is necessary, now more than ever. Veritone has developed proprietary machine learning algorithms, now protected by several U.S. patents, to meet this pressing need."

These battery control patents complement Veritone's patented AI-based energy solutions for predictive real-time control, management and adaptation of smart grids. By applying advanced models, rules and learning to weather forecast, energy demand, pricing, and device data, Veritone Energy Solutions help utilities automatically predict optimal energy supply mix and pricing to meet grid demand, in real-time.

The following new battery control patents have been issued to Veritone:

- The first patent (U.S. Patent No. 10,601,316) is generally related to techniques for automated, real-time and dynamic control of battery power (charging or discharging) based on its current charge state, to optimize battery operation and increase battery longevity. The patent also includes the ability to synchronize power across multiple batteries across a farm or microgrid to ensure ideal power across the systems.
- The second patent (U.S. Patent No. 10,666,076) is generally related to techniques for dynamic control of batteries by continuously updating control models based on the battery's current state and behavior, thereby optimizing battery operation and increasing battery longevity. The current state is measured by sensing variations in battery output as a result of input excitation signals sent to the battery.
- The third patent (U.S. Patent No. 10,816,949) is generally related to techniques for battery control system impedance actuators that optimally control the battery based on its current charge state and thermal state, reducing power dissipation and increasing battery life. The patent also includes the ability to use a mean field game representation to synchronize battery power delivery across multiple control systems present in a battery farm or microgrid.

"Other battery control solutions rely on day-ahead forecasting and steady state battery operation, which are not realistic in today's distributed, unpredictable clean energy grids," said Dr. Wolf Kohn, Chief Data Scientist at Veritone. "Our battery control technology, represented in the three new patents we have been granted, is unique in that it is based on real-time AI that predicts energy supply and demand minutes ahead, instead of days, and is based on the dynamic conditions of the battery and the operating environment at any given time."

"Veritone's dynamic battery control and synchronization technology helps independent service providers and battery providers optimize battery operation, reduce power dissipation and prolong battery life," said Adje Mensah whose firm A.F. Mensah, Inc. develops and operates solar and battery storage projects. "With its innovative intelligent battery management technology, Veritone's ability to leverage massive amounts of historical and real-time data to balance energy supply and demand is unique in the market, and truly transformative when it comes to solar forecasting and optimal dispatch for battery farms and microgrids."

Veritone Energy's Solutions include: Forecaster, which accurately detects and predicts energy supply, demand and price; Optimizer, which makes AI-based energy supply determinations; Controller, for predictive device control and active synchronization, combining energy sources to optimally satisfy demand; and Arbitrage, for buying, selling and

dispatching energy. Veritone aiWARE, the leading cognitive operating system, provides deployment, integration, data services and weather services to these solution components. Veritone Energy's highly customizable solutions can be applied to solve a wide range of challenges facing the industry, including solar smoothing, demand response, micro-grid synchronization, intelligent device control, voltage optimization, regulatory compliance, dispatch optimization and high-speed energy arbitrage. Its highly-differentiated solutions are covered by 13 patents issued in the United States and other countries, with an additional 16 applications pending.

For more information on Veritone Energy patented technology, including the scientific research behind it, please click here. To learn more about Veritone Energy solutions, please visit: https://www.veritone.com/solutions/energy/.

About Veritone

Veritone (NASDAQ: VERI) is a leading provider of artificial intelligence (AI) technology and solutions. The company's proprietary operating system, aiWARE™, powers a diverse set of AI applications and intelligent process automation solutions that are transforming both commercial and government organizations. aiWARE orchestrates an expanding ecosystem of machine learning models to transform audio, video, and other data sources into actionable intelligence. The company's AI developer tools enable its customers and partners to easily develop and deploy custom applications that leverage the power of AI to dramatically improve operational efficiency and unlock untapped opportunities. Veritone is headquartered in Costa Mesa, California, and has offices in Denver, London, New York and San Diego. To learn more, visit Veritone.com.

Safe Harbor Statement

This news release contains forward-looking statements, including without limitation statements regarding the Company's patents, the features and performance of its aiWARE Energy solutions and their expected benefits to customers. Without limiting the generality of the foregoing, words such as "may," "will," "expect," "believe," "anticipate," "intend," "could," "estimate" or "continue" or the negative or other variations thereof or comparable terminology are intended to identify forward-looking statements. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances are forward-looking statements. Assumptions relating to the foregoing involve judgments and risks with respect to various matters which are difficult or impossible to predict accurately and many of which are beyond the control of Veritone. Certain of such judgments and risks are discussed in Veritone's SEC filings. Although Veritone believes that the assumptions underlying the forward-looking statements are reasonable, any of the assumptions could prove inaccurate and, therefore, there can be no assurance that the results contemplated in forward-looking statements will be realized. In light of the significant uncertainties inherent in the forward-looking information included herein, the inclusion of such information should not be regarded as a representation by Veritone or any other person that their objectives or plans will be achieved. Veritone undertakes no obligation to revise the forward-looking statements contained herein to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

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