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Ideal Power Delivers Initial B-TRAN™ Devices to Diversified Technologies under NAVSEA Program

AUSTIN, Texas, Aug. 10, 2022 (GLOBE NEWSWIRE) -- [Ideal Power Inc.](#) (Nasdaq: IPWR), pioneering the development and commercialization of the highly efficient and broadly patented B-TRAN™ bidirectional power switch, today announced it delivered initial Bidirectional, Bipolar Junction Transistor (B-TRAN™) devices to [Diversified Technologies, Inc.](#) (DTI) under the contract awarded to DTI by the [United States Naval Sea Systems Command](#) (NAVSEA) to develop and demonstrate a B-TRAN™ enabled high efficiency 12kV medium voltage direct current (MVDC) circuit breaker. These initial devices will be utilized for characterization and testing to support DTI's breaker design efforts in advance of future device deliveries for incorporation into a full-scale MVDC circuit breaker. Prior to delivery, the B-TRAN™ devices were tested and demonstrated results consistent with the very low losses predicted by prior internal and third-party simulations.

"The delivery of initial packaged B-TRAN™ devices to DTI is a significant accomplishment under the NAVSEA program. These devices incorporate the wafer processing improvements and packaging design developed under the program," said Dan Brdar, President and Chief Executive Officer of Ideal Power. "Circuit breakers perform a critical function in power generation, transmission, and distribution systems to protect against power surges and short circuits, with the circuit breaker market overall projected to grow at a compound annual growth rate of over 6% to approximately \$26 billion by 2027, driven by the increased electrification of our daily lives. The fast-switching speed of B-TRAN™ solves the slow operating time and electrical arcing of traditional mechanical circuit breakers while also providing more than 50% lower conduction losses compared to solid-state circuit breakers utilizing conventional semiconductor power switches. These benefits position B-TRAN™ to potentially be an enabling technology for circuit breaker applications such as distributed direct current (DC) networks."

The NAVSEA project is funded under the Department of Defense's Rapid Innovation Fund, which is designed to accelerate the commercialization of high-value, high-impact technologies. Ideal Power and DTI's collaboration is expected to help establish the viability of shipboard MVDC power distribution by delivering extremely fast fault interruption, low fault currents, flexible programmable coordination, and mechanical isolation, which are key factors to the reliable and safe operation of DC power systems. The U.S. Navy has stated a goal to increase shipboard power densities in order to field ships with greater operational flexibility. The use of MVDC in ship electrification and distributed DC networks may result in less vulnerable power distribution systems and naval vessels.

About Ideal Power Inc.

Ideal Power (NASDAQ: IPWR) is pioneering the development of its broadly patented bidirectional semiconductor power switch, creating highly efficient and ecofriendly energy control solutions for electric vehicle, electric vehicle charging, renewable energy, energy storage, UPS / data center, solid-state circuit breaker and other industrial and military applications. The Company is focused on its patented Bidirectional, Bipolar Junction Transistor (B-TRAN™) semiconductor technology. B-TRAN™ is a unique double-sided bidirectional AC switch able to deliver substantial performance improvements over today's conventional power semiconductors. Ideal Power believes B-TRAN™ will reduce conduction and switching losses, complexity of thermal management and operating cost in medium voltage AC power switching and control circuitry. For more information, visit www.IdealPower.com.

Safe Harbor Statement

All statements in this release that are not based on historical fact are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 and the provisions of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. While Ideal Power's management has based any forward-looking statements included in this release on its current expectations, the information on which such expectations were based may change. Such forward-looking statements include, but are not limited to, statements regarding the benefits of B-TRAN™ in MVDC circuit breakers, the projected growth of the circuit breaker market, expectations regarding B-TRAN™ being an enabling technology for solid-state circuit breaker applications and the viability of shipboard MVDC power distribution. These forward-looking statements rely on a number of assumptions concerning future events and are subject to a number of risks, uncertainties and other factors, many of which are outside of our control that could cause actual results to materially differ from such statements. Such risks, uncertainties, and other factors include, but are not limited to, the impact of COVID-19 on our business, financial condition and results of operations, the success of our B-TRAN™ technology, including whether the patents for our technology provide adequate protection and whether we can be successful in maintaining, enforcing and defending our patents and our inability to predict with precision or certainty the pace and timing of development and commercialization of our B-TRAN™ technology, including the timing of the completion of our wafer fabrication runs with our semiconductor fabrications partners and our continued success engaging companies to participate in our customer sampling program, and uncertainties set forth in our quarterly, annual and other reports filed with the Securities and Exchange Commission. Furthermore, we operate in a highly competitive and rapidly changing environment where new and unanticipated risks may arise. Accordingly, investors should not place any reliance on forward-looking statements as a prediction of actual results. We disclaim any intention to, and undertake no obligation to, update or revise forward-looking statements, except as required by applicable law.

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