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# **Ideal Power Enters into Development Agreement with Top 10 Global Automaker for B-TRAN™-based Electric Vehicle Power Module**

## **This Marks the Second Top 10 Global Automaker Engagement for Ideal Power**

AUSTIN, Nov. 14, 2022 (GLOBE NEWSWIRE) -- [Ideal Power Inc.](#) (“Ideal Power” or the “Company”) (Nasdaq: IPWR), pioneering the development and commercialization of the highly efficient and broadly patented B-TRAN™ bidirectional semiconductor power switch, today announced it entered into a product development agreement with a top 10 global automaker. Under this agreement, Ideal Power will partner with this automaker’s advanced technology development team to develop a custom B-TRAN™ power module for use in electric vehicle (EV) drivetrain inverters in its next generation EV platform.

Multiple new suppliers and technologies were considered for entry into the program. Each was evaluated for its innovation, potential performance improvements, and return on investment. Ideal Power demonstrated that its B-TRAN™ technology and its value proposition surpassed that of the other contending power device technologies. Ideal Power was selected for this program because B-TRAN™ potentially offers significant EV inverter efficiency improvements while using the established silicon supply chain, which will offer cost advantages over competing technologies that rely on high-cost materials like silicon carbide (SiC).

Under this development program, Ideal Power will also collaborate with an innovative packaging company that will produce the custom B-TRAN™ modules. The delivery of production-ready B-TRAN™-based modules is targeted for 2025.

“We are very excited to engage with another top 10 global automaker and enter into our first B-TRAN™ development agreement for a custom B-TRAN™ module,” stated Dan Brdar, President and Chief Executive Officer of Ideal Power. “After a thorough technology assessment, B-TRAN™ was selected in lieu of several competing technologies, including silicon carbide devices, for its superior performance in EV applications, including low conduction losses, inherent bidirectional capability, and lower cost. These characteristics are expected to lead to greater drivetrain efficiency, lower thermal management requirements and greater EV range. As automakers’ engineering teams pursue EV technology roadmaps under intense pressure to lower EV production costs, B-TRAN™ offers a compelling value

proposition.”

B-TRAN™ potentially offers distinct advantages over other technologies in EV applications. EVs currently cost more to manufacture than internal combustion engine vehicles, resulting in automakers needing to reduce cost in order to remain price competitive. After batteries, power semiconductors are the second largest cost component of an EV and typically make up 8-10% of the total electric vehicle production cost. While SiC-based devices improve efficiency over traditional silicon-based semiconductors, their very high cost compared to silicon-based devices adds to the cost challenges of EVs. B-TRAN™ offers the potential to reduce cost and improve efficiency and vehicle range through its lower conduction losses compared to SiC-based devices. A silicon-based B-TRAN™ can offer both improved performance and lower power switch costs. In addition to these benefits, B-TRAN™ offers a clear roadmap to incorporate the benefits of silicon carbide as its cost and manufacturability profile improves over time.

#### **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](http://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 our belief that B-TRAN™ offers significant EV inverter efficiency improvements and cost advantages over competing technologies, the anticipated success of the development program, and that the program will result in production-ready B-TRAN™-based modules targeted by 2025. 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.

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