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ABB and Cree in silicon carbide partnership to deliver automotive and industrial solutions

- Accelerates market entry of ABB's Power Grids business into the high-growth electric vehicles (EV) sector
- Enables Cree to broaden its customer base, leveraging ABB's extensive power semiconductor portfolio

ABB's Power Grids business and Cree (Nasdaq: CREE), the leading US-based manufacturer of power semiconductors in silicon carbide, have announced a partnership to jointly expand the rollout of silicon carbide-based products in the rapidly growing power semiconductor market. Silicon carbide is a semiconductor containing silicon and carbon that can switch high current with lower losses, compared to a standard semiconductor.

By incorporating Cree's silicon carbide semiconductors into its product portfolio, ABB accelerates its entry into the fast-expanding EV sector.

For Cree, the partnership enables the company to broaden its customer base. Cree's products will be included into ABB's power semiconductor product portfolio, across power grids, train and traction, industrial, and e-mobility sectors. Cree's high-end silicon carbide devices will be assembled into power modules in ABB's award-winning automated power semiconductor factory in Lenzburg, Switzerland.

"The partnership with Cree supports ABB's strategy in developing energy-efficient silicon carbide semiconductors in the automotive and industrial sectors," said Rainer Käsmaier, Managing Director of Semiconductors at ABB's Power Grids business. "It emphasizes ABB's commitment to continuous technological innovation to shape the future of a smarter and greener society."

"Working together with ABB, the global market leader in industrial power electrification solutions, will help increase the adoption of transformative and eco-friendly alternatives," said Gregg Lowe, CEO of Cree. "This partnership allows us to enter new markets and contributes to the continued advancement of the power, traction, industrial and EV sectors."

Why are silicon carbide semiconductors eco-friendly?

Compared to a standard silicon-based semiconductor, a silicon carbide semiconductor allows energy conversion with almost no losses, thus reducing carbon dioxide emissions.

Applications of this technology include traction inverters for trains, HVDC for power transmission and distribution, solar and wind inverters, energy storage, and transformers. For the EV market, this means that cars can drive longer and be charged faster.

About ABB:

ABB (ABBN: SIX Swiss Ex) is a technology leader that is driving the digital transformation of industries. With a history of innovation spanning more than 130 years, ABB has four customer-focused, globally leading businesses: Electrification, Industrial Automation, Motion, and Robotics & Discrete Automation, supported by the ABB Ability™ digital platform. ABB's Power Grids business will be divested to Hitachi in 2020. ABB operates in more than 100 countries with about 147,000 employees. www.abb.com

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