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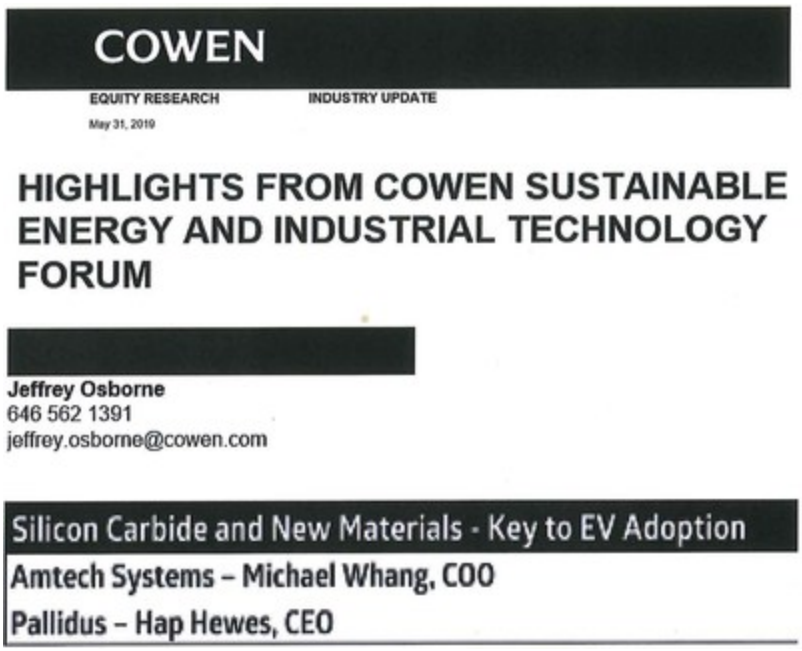
Amtech's COO Participates in Sustainability and Industry Technology Forum Panel and Comments about Strategic Opportunities in Emerging SiC Power Business

TEMPE, Ariz., July 2, 2019 /PRNewswire/ -- Amtech Systems, Inc. (NASDAQ: ASYS), a manufacturer of capital equipment, including thermal processing and wafer handling automation, and related consumables used in fabricating semiconductor devices, light-emitting diodes (LEDs), silicon carbide (SiC) and silicon power chips and solar cells, Chief Operating Officer, Michael Whang, recently participated in a panel discussion at Cowen's Sustainable Energy and Industrial Technology Forum. The discussion underscored the significant opportunity that SiC (silicon carbide) represents for the semiconductor marketplace. Amtech Systems' subsidiary, PR Hoffman, has market-leading capabilities in SiC, and management looks to expand through both organic growth and the acquisition of relevant businesses or products serving the market.

In line with the points raised in the panel discussion, Michael Whang comments today, "We are strategically focused on our semi and emerging SiC power business opportunities and are highly confident it represents a significant growth opportunity for the industry and Amtech. We are well positioned in that our SiC capabilities already include market-leading technologies and state-of-the-art production equipment, and we continue to plan for timely product innovations to stay ahead of our customers' needs. We are encouraged by conversations with our customers and their planning for the anticipated growth in demand. We strongly believe that SiC represents a significant value-driving opportunity for our Company in the near and longer term."

Key points raised in the May panel discussion and summarized by the hosting-firm's analyst follow.



Impact to Our Coverage

Commentary around price trends, tightness in the market and anticipated demand/usage of SiC in new platforms for EVs supports Cree's recent $1 billion capex initiative and can be seen as a net positive for the Company. Amtech should be well positioned as SiC wafer starts increase.

Key Takeaways

The panel discussed the high barriers to entry for SiC boule production given the unique characteristics of each company's crystal growing process. The learning curve is high, and the process is also labor intensive, taking around a week to produce a single SiC boule. Slight variations in the process can have huge impacts on yield quality. Prices were noted above $1,000 per 6-inch wafer, with spot prices nearly double that.

Qualification of a 150mm wafer in simple applications can take around 6 months, and more complicated specifications could take up to a year. 8-inch wafer commercialization is likely to still be several years away, with shipments of 6-inch just beginning increase in volume. There is currently a wait of between 12 to 18 months for 6-inch SiC material, and both Pallidus and Amtech were encouraged by Cree's $1 billion investment in SiC production. We view this as a signal to the auto supply chain that meaningful capacity is being added. Not only is this a validation of the technology, but increasing supply and sourcing should help to broaden automotive adoption where OEMs prize the ability to multi-source inputs. If SiC is fully adopted by the automotive industry for multiple applications, like on-board charger (OBC), DC/DC convertor, inverter, and off-board DC fast charging, we could see a single 6-inch wafer supplying MOSFETs that would be used on about 3 EVs. This could represent a huge source of demand longer term, given a company like VW, which produces about 7 million vehicles annually, is planning to offer 70 new electric models by 2028. Ultimately, this could represent 22 million vehicles over a 10-year period, or more than 7 million SiC wafers, based on our illustrative example of full adoption throughout the vehicle as well as fast charging infrastructure. We see more widespread adoption in the early 2020s, with Tesla's

use now in inverters and more pervasive use across multiple OEMs for OBC and fast charging.

About Amtech Systems, Inc.

Amtech Systems, Inc. is a global supplier of advanced thermal processing and polishing equipment and related consumables to the semiconductor / electronics, power IC businesses, and advanced lighting manufacturing markets. Amtech's equipment includes diffusion, solder reflow systems, wafer handling automation, and polishing equipment and related consumables for surface preparation of various materials, including silicon carbide ("SiC"), sapphire and silicon. The Company's wafer handling, thermal processing, polishing and consumable products currently address the diffusion, oxidation, and deposition steps used in the fabrication of semiconductors, printed circuit boards, semiconductor packaging, MEMS, and advanced lighting, including the polishing of newly sliced sapphire and silicon wafers. Amtech's products are recognized under the leading brand names BTU International, Bruce Technologies™, PR Hoffman™, and R2D Automation™.

Cautionary Note Regarding Forward-Looking Statements

Certain information contained in this press release is forward-looking in nature. All statements in this press release, or made by management of Amtech Systems, Inc. and its subsidiaries ("Amtech"), other than statements of historical fact, are hereby identified as "forward-looking statements" (as such term is defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended). The forward-looking statements in this press release relate only to events or information as of the date on which the statements are made in this press release. Examples of forward-looking statements include statements regarding Amtech's future financial results, operating results, business strategies, projected costs, products under development, competitive positions, plans and objectives of Amtech and its management for future operations, efforts to improve operational efficiencies and effectiveness and greater China sourcing. In some cases, forward-looking statements can be identified by terminology such as "may," "will," "should," "would," "expects," "plans," "anticipates," "intends," "believes," "estimates," "predicts," "potential," "continue," or the negative of these terms or other comparable terminology used in this press release or by our management, which are intended to identify such forward-looking statements. These statements are not guarantees of future performance and involve risks, uncertainties and assumptions that are difficult to predict. The Form 10-K that Amtech filed with the Securities and Exchange Commission (the "SEC") for the year-ended September 30, 2018, listed various important factors that could affect the company's future operating results and financial condition and could cause actual results to differ materially from historical results and expectations based on forward-looking statements made in this document or elsewhere by Amtech or on its behalf. These factors can be found under the heading "Risk Factors" in the Form 10-K and investors should refer to them. Because it is not possible to predict or identify all such factors, any such list cannot be considered a complete set of all potential risks or uncertainties. Except as required by law, we undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events, or otherwise.

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