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July 13, 2018

Office of the United States Trade Representative
60017th Street, NW
Washington, DC 20508

RE: Comments of Southwire Concerning Proposed Modification of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation

Docket Number USTR-2018-0018

- My name is Greg Merritt. I am Vice President for Marketing and Public Affairs at Cree, Inc.
- Cree is an American company, a market-leading innovator and the leading U.S. producer of power semiconductors based on cutting edge Silicon Carbide (SiC). SiC-based power semiconductors are superior in many ways to the current industry-standard silicon-based power semiconductors.
- Power semiconductors are critical components in applications such as electric vehicles, electric vehicle charging, solar power inverters, energy storage and computing and industrial power supplies
- Cree has invested heavily in developing and expanding American IP through $1.3 billion in R&D spending in the U.S. over the last ten years. Our R&D investment has led to over 2,200 U.S. patents.
- Cree's R&D spending and our IP development takes place in our Durham, NC headquarters facility.
- We produce the silicon carbide materials and power semiconductors wholly in our Durham, N.C. facilities. The production of silicon carbide wafers for power semiconductors is a high-tech, complicated process using extremely proprietary technology. This process involves hundreds of semiconductor fabrication processes and takes between 6 and 20 weeks.
- Cree produced tens of millions of units in our Durham facilities in 2017 representing a 32% increase over 2016 and a 79% increase since 2014.
- Silicon carbide technology has not developed successfully in China yet and Cree's goal is to ensure that it never does by maintaining its current U.S. technological superiority in these products.

- In order to maintain this superiority, we must continue to grow faster than aspiring producers in China.
- Anything that slows down Cree's ability to invest in and continue to grow the silicon carbide business would create an opportunity for Chinese producers to enter or gain momentum in this market.
- The inclusion of certain products, specifically, our Schottky Diodes under HTS 8541.10.00, on Annex C would impact our competitiveness in the U.S. market.
- Cree, like many U.S. semiconductor companies, exports these fully manufactured power semiconductors to China for final packaging. There are very little in value-added operations conducted in China and no Cree IP is transferred or made available to the Chinese processors.
- The packaged power semiconductors are sold throughout the world with approximately 45% of all sales to China.
- While silicon carbide power semiconductors offer superior performance to silicon-based power semiconductors, our U.S. customers will not accept a price increase of 25% as a result of the 301 duties.
- As a result, U.S. customers are likely to not choose Cree's SiC power semiconductors.
- The loss of our U.S. sales would damage the ability of Cree to continue to significantly invest in growing our market position and improving the silicon carbide products. Hence, our expansion would slow and this would create an opportunity for companies in China to enter the market.
- Cree supports the Administration's efforts to protect U.S. companies from Chinese anti-competitive policies and IP theft. However, in this particular case, the proposed 301 duties would actually damage the ability of Cree and our customers to maintain our technological advantage over China in cutting edge power semiconductor technology.
- This is the very definition of "disproportionate economic harm": the value of Cree's U.S. R&D and IP investments would decrease, our non-U.S. competitors would obtain a competitive advantage over Cree's American operations and the tariff would have no impact on China's anti-competitive IP practices.
- We do not believe this outcome is what the Administration intended nor do we believe it meets the goals of the 301. Therefore, we request that HTS number 8541.10.00 be removed from the list.