



## **Hanwha Q CELLS surpasses 10 GW of Q.ANTUM solar cell production - first time ever for any PERC technology**

December 17, 2018

- **Hanwha Q CELLS passed the 10 GW production mark for its proprietary Q.ANTUM solar cell technology**
- **The Company will end 2018 having produced more than 2.5 billion individual Q.ANTUM cells since commencing commercialization in 2012**
- **Hanwha Q CELLS CTO Dr. Daniel Jeong remarked: "Hanwha Q CELLS' Q.ANTUM technology has been a real game-changer - not just in underpinning the Company's renowned Q.PEAK and Q.PLUS module series, but also in terms of raising standards in module performance and efficiency throughout the solar industry. We are proud to have surpassed 10 GW of production and enter 2019 looking to accelerate Q.ANTUM's growth towards the 20 GW milestone."**

BERLIN, Dec. 17, 2018 /PRNewswire/ -- Hanwha Q CELLS (collectively referring to Hanwha Q CELLS Co., Ltd. (NASDAQ: HQCL as well as Hanwha Q CELLS & Advanced Materials Corporation) (or the "Company"), one of the largest solar cell and module manufacturers in the world, today announced that it has surpassed the 10 GW threshold for production of the Company's proprietary Q.ANTUM cell technology.

This production landmark was achieved earlier this year, and Hanwha Q CELLS is on course to end 2018 having produced more than 2.5 billion Q.ANTUM solar cells since first mass-commercializing the technology in 2012. To help illustrate just how many Q.ANTUM solar cells the industry has embraced, 2.5 billion solar cells laid end-to-end would cover a distance of approximately 390,000 km - enough to circle around the globe at the equator almost ten times and roughly the distance from the earth to the moon.

Q.ANTUM is the proprietary solar cell technology platform for Hanwha Q CELLS. Though based on passivated emitter rear-side cell (PERC) technology, Q.ANTUM offers a number of additional benefits that differentiate the technology from conventional PERC products. These benefits include high module performance output and long-term reliability thanks to excellent anti-PID (potential induced degradation), anti-LID (light induced degradation) and anti-LeTID (light and elevated temperature induced degradation) performance.

### **Q.ANTUM: Delivering a wealth of benefits for the customer**

Recently, Fraunhofer CSP independently tested the anti-LeTID performance of nine different module types from leading solar manufacturers and found that Hanwha Q CELLS' monocrystalline silicon Q.PEAK DUO and multicrystalline Q.PLUS modules exhibited <1% power loss when subjected to LeTID testing conditions. This result placed both modules as market leaders of Fraunhofer's performance graph.

In addition to market-leading anti-degradation performance, Hanwha Q CELLS provides for all of its Q.ANTUM cells and modules excellent performance warranties, Hot-Spot-Protect and Tra.Q laser marking to ensure 100% traceability and a guarantee of the Company's strict quality standards.

Hanwha Q CELLS has more than 5 GW of global Q.ANTUM cell capacity, which equates to one of the industry's largest PERC-based capacities. The Company's flagship products that are helping to drive the uptake of Q.ANTUM technology include the Q.PEAK DUO-G5 solar module range, which boasts half-cut cell technology and six bus bars to deliver efficiencies of close to 20% and power output of up to 330 Wp for 120 half-cut cells and up to 400 Wp for 144 half-cut cells.

Dr. Daniel Jeong, CTO of Hanwha Q CELLS, remarked: "Hanwha Q CELLS' Q.ANTUM technology has been a real game-changer - not just in underpinning the Company's renowned Q.PEAK and Q.PLUS module series, but also in terms of raising standards in module performance and efficiency throughout the solar industry. We are proud to have surpassed 10 GW of production and enter 2019 looking to accelerate Q.ANTUM's growth."

### **About Hanwha Q CELLS**

Hanwha Q CELLS Co., Ltd. (NASDAQ:HQCL) is one of the world's largest and most recognized photovoltaic manufacturers for its high-performance, high-quality solar cells and modules. It is headquartered in Seoul, South Korea (Global Executive HQ) and Thalheim, Germany (Technology & Innovation HQ) with its diverse international manufacturing facilities in Malaysia and China. Hanwha Q CELLS offers the full spectrum of photovoltaic products, applications and solutions, from modules to kits to systems to large-scale solar power plants. Through its growing global business network spanning Europe, North America, Asia, South America, Africa and the Middle East, the company provides excellent services and long-term partnerships to its customers in the utility, commercial, governmental and residential markets. Hanwha Q CELLS is a flagship company of Hanwha Group, a FORTUNE Global 500 firm and a Top 10 business enterprise in South Korea. For more information, visit: <http://www.hanwha-qcells.com>.

### **Safe-Harbor Statement**

This press release contains forward-looking statements. These statements constitute "forward-looking" statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and as defined in the U.S. Private Securities Litigation Reform Act of 1995. These forward-looking statements can be identified by terminology such as "will," "expects," "anticipates," "future," "intends," "plans," "believes," "estimates" and similar statements. Among other things, the quotations from management in this press release and the Hanwha Q CELLS' operations and business outlook, contain forward-looking statements. Such statements involve certain risks and uncertainties that could cause actual results to differ materially from those expressed in or suggested by the forward-looking statements. Further information regarding these and other risks is included in Hanwha Q CELLS filings with the U.S. Securities and Exchange Commission, including its annual report on Form 20-F. Except as required by law, Hanwha Q CELLS does not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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