JinkoSolar's Perovskite Tandem Solar Cell Based on N-type TOPCon Sets New Record with Conversion Efficiency of 33.84%

January 6, 2025

SHANGRAO, China, Jan. 6, 2025 /PRNewswire/ -- JinkoSolar Holding Co., Ltd. (the "Company," or "JinkoSolar") (NYSE: JKS), one of the largest and most innovative solar module manufacturers in the world, today announced that it has achieved a significant breakthrough in the development of its N-type TOPCon-based perovskite tandem solar cell. Independently tested by the Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, the cell achieved an impressive conversion efficiency of 33.84%, surpassing JinkoSolar's previous record of 33.24%. This achievement marks the 27th time JinkoSolar has set a world record for efficiency and power output for PV products.

The record-breaking perovskite tandem solar cell utilizes JinkoSolar's N-type high-efficiency monocrystalline TOPCon solar cell as the bottom cell, enhanced by significant advancements across multiple key technologies. Innovations such as full-area passivated contact technology, perovskite interfacial defect passivation technology, and bulk defect passivation technology have contributed to the enhanced efficiency of the perovskite/TOPCon tandem cell. The results once again break the conversion efficiency limit of single-junction crystalline silicon cells. This achievement highlights the compatibility of TOPCon as a mainstream solar cell technology with the next-generation perovskite/silicon tandem cell technology, paving the way for new possibilities in the future development of the photovoltaic industry.

Dr. Jin Hao, CTO of Jinko Solar Co., Ltd., said, "Once again, we have achieved remarkable progress in solar cell efficiency as a result of our ongoing investments in R&D and steadfast commitment to excellence. This milestone strengthens our confidence in our ability to achieve further technological breakthroughs as we work toward building a greener and more sustainable energy future."

About JinkoSolar Holding Co., Ltd.

JinkoSolar (NYSE: JKS) is one of the largest and most innovative solar module manufacturers in the world. JinkoSolar distributes its solar products and sells its solutions and services to a diversified international utility, commercial and residential customer base in China, the United States, Japan, Germany, the United Kingdom, Chile, South Africa, India, Mexico, Brazil, the United Arab Emirates, Italy, Spain, France, Belgium, Netherlands, Poland, Austria, Switzerland, Greece and other countries and regions.

JinkoSolar had over 10 productions facilities globally, over 20 overseas subsidiaries in Japan, South Korea, Vietnam, India, Turkey, Germany, Italy, Switzerland, the United States, Mexico, Brazil, Chile, Australia, Canada, Malaysia, the United Arab Emirates, Denmark, Indonesia, Nigeria and Saudi Arabia, and a global sales network with sales teams in China, the United States, Canada, Brazil, Chile, Mexico, Italy, Germany, Turkey, Spain, Japan, the United Arab Emirates, Netherlands, Vietnam and India, as of September 30, 2024.

To find out more, please see: www.jinkosolar.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 Company's 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 in the forward-looking statements. Further information regarding these and other risks is included in JinkoSolar's filings with the U.S. Securities and Exchange Commission, including its annual report on Form 20-F. Except as required by law, the Company does not undertake any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

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