JinkoSolar's Perovskite Tandem Solar Cell Based on N-type TOPCon Sets New Record with Conversion Efficiency of 33.24%

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SHANGRAO, China, May 31, 2024 /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 a significant breakthrough in the development of its N-type TOPCon-based perovskite tandem solar cell. Tested by the Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences, the cell achieved an impressive conversion efficiency of 33.24%, a significant leap beyond JinkoSolar's previous record of 32.33% for the same type of tandem cells. This is a remarkable achievement, breaking the world record in efficiency and power output for PV products an impressive 26 times.

The record-breaking perovskite tandem solar cell employed Jinko's n-type high-efficiency monocrystalline TOPCon solar cell as the bottom cell. This breakthrough in conversion efficiency for the perovskite/TOPCon tandem solar cell has been achieved through various materials and technology innovations including ultra-thin poly-Si passivated contact technology, novel light-trapping technology, intermediate recombination layer with high light transmittance and high carrier mobility, and efficient surface passivation technology using hybrid materials. This achievement demonstrates the compatibility of TOPCon as a mainstream solar cell technology with the next-generation perovskite/silicon tandem cell technology, breaking the efficiency limit of single-junction silicon solar cell.

As a leading company in the photovoltaic industry, JinkoSolar invests substantial R&D annually for technological innovation, continuously building up its patent portfolio and breaking world records in R&D achievements. To date, JinkoSolar has applied for over 3,800 global patents and has been granted more than 3,500, providing higher efficiency and better value energy solutions to the global solar photovoltaic market with ongoing technological breakthroughs.

Dr. Jin Hao, CTO of JinkoSolar, said, "This milestone breakthrough once again highlights JinkoSolar's determination to continuously push the boundaries through strong technological innovation capabilities. It also lays a solid technical foundation for the Company's continuous development. We believe that, as we continue to deepen our scientific research and technology, we will contribute to building a greener and more sustainable new energy structure."

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 utility-scale, commercial and residential customers 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 14 productions facilities globally, 26 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 March 31, 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.

For investor and media inquiries, please contact:

Ms. Stella Wang
JinkoSolar Holding Co., Ltd.
Tel: +86 21-5180-8777 ext.7806
Email: pr@jinkosolar.com

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