

## Press Release

### **Heraeus Photovoltaics and JinkoSolar sign strategic partnership to develop new generations of super PV cells**

SHANGHAI, China- September 4, 2017- Heraeus Photovoltaics, the worldwide leading supplier of metallization solutions to the PV industry, announced today that it has signed a comprehensive strategic partnership agreement with JinkoSolar Holding Co., Ltd. (JinkoSolar), a global leader in the solar industry, to jointly develop new-generation Super PV Cells with higher efficiency and lower costs. Additionally, the agreement will include exploring energy markets along the Belt and Road regions in China.

Mr. Chen Kangping, CEO of JinkoSolar pointed out, "As one of our key partners, Heraeus Photovoltaics has provided great support to JinkoSolar's growth over the past three years, and helped us to rank No. 1 with a global PV modules shipment of 6.7GW in 2016. With our shared vision and firm commitment to renewable energies, we are excited to sign this landmark agreement with Heraeus Photovoltaics, and convinced that our cooperation will lead to more fruitful results."

The agreement is in alignment with the Heraeus vision to provide innovation and support across the PV production value chain. Andreas Liebheit, President of Heraeus Photovoltaics, said, "This is the third time our companies have signed a strategic partnership, and it sets a new benchmark of successful cooperation between upstream and downstream companies for the ever-changing and challenging PV industry. We believe that with a closer cooperation between the two leading companies, PV is expected to become the most economical and widely used energy form in the near future."

Since the two companies began working together in August 2015, JinkoSolar has been exclusively using front-side silver pastes from Heraeus Photovoltaics, while providing strong support for Heraeus Photovoltaics in product innovation. During this partnership, Heraeus launched two new-generation strategic pastes in 2016, SOL9631J and SOL9641J, and offered tailor-made products for mono PERC and black silicon cells for JinkoSolar. As a result, JinkoSolar has successfully improved the efficiency of its PV cells by more than 0.3% and reduced the production cost of the cells by 15% per watt. Heraeus Photovoltaics will accelerate the update of its silver paste products so customers can improve the cell efficiency by 0.2% every year. Heraeus will work with JinkoSolar's new R&D efforts in efficient black silicon cells and n-type cells are expected to further increase the cell efficiency.

Another key element of the agreement will be to collaboratively support the Chinese government's Belt and Road Initiative. JinkoSolar has sped up its overseas expansion to implement the development strategy of Global Sales to Global Manufacture and to Global Investment. As the first overseas PV factory established by a Chinese company with the largest investment of its kind, JinkoSolar's factory in Malaysia has registered a cell capacity of 1.5GW and a module capacity of 1.5GW, accounting for about 15% of the company's production value.

Mr. Kangping noted, "The new energy industry is one of the key areas of cooperation in the Belt and Road strategy. With increased competitiveness, new energy companies in China, including PV companies, have spared no efforts to explore overseas markets and expedited their global operations, We are very honored to receive such strong support from Heraeus Photovoltaics as our global partner throughout this process." Mr. Liebheit added that capitalizing on growth opportunities requires the ability to maximize strategic partnerships. "Innovation and a strong, stable product

footprint are critical, but successful collaboration is the third leg of the stool,” he said. “This partnership is a win for both companies: it will bring together the best and brightest technical minds from both companies to accelerate innovation and help us advance the adoption and growth of solar energy worldwide.”

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### **About JinkoSolar Holding Co., Ltd.**

JinkoSolar (NYSE: JKS) is a global leader in the solar industry. 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, and other countries and regions. JinkoSolar has built a vertically integrated solar product value chain, with an integrated annual capacity of 5.0 GW for silicon ingots and wafers, 4.0 GW for solar cells, and 6.5 GW for solar modules, as of March 31, 2017.

JinkoSolar has over 15,000 employees across its 8 production facilities in China(5), Malaysia, Portugal and South Africa, 15 oversea subsidiaries in Japan (2), Singapore, India, Turkey, Germany, Italy, Switzerland, United States, Canada, Mexico, Brazil, Chile, Australia and South Africa, and 18 global sales offices in China (2), United Kingdom, Bulgaria, Greece, Romania, United Arab Emirates, Jordan, Saudi Arabia, Kuwait, Egypt, Morocco, Ghana, Kenya, Costa Rica, Colombia and Brazil.

To find out more, please see: [www.jinkosolar.com](http://www.jinkosolar.com).

### **About the Heraeus Photovoltaics Global Business Unit**

The Heraeus Photovoltaics Global Business Unit is an industry leading developer and manufacturer of silver metallization pastes for the photovoltaic industry. For over 40 years, Heraeus has built a reputation of innovation, extensive research and new product development in thick film technologies for some of the most prominent companies within a variety of industries. In the field of photovoltaics, the Heraeus Photovoltaics Business Unit applies this history and its innovative technology to offer metallization pastes for solar cell applications. The Heraeus SOL Series of silver pastes is specially formulated to provide higher efficiencies and wider processing windows, resulting in better yields and higher output for cell manufacturers.

### **About the Heraeus Group**

Heraeus, the technology group headquartered in Hanau, Germany, is a leading international family-owned company formed in 1851. With expertise, a focus on innovations, operational excellence and an entrepreneurial leadership, we strive to continuously improve the businesses of our customers around the world. We create high-quality solutions for our customers and strengthen their long-term competitiveness by combining material expertise with technological know-how. Our ideas are focused on important issues such as the environment, energy, health, mobility and industrial applications. Our portfolio ranges from components to coordinated material systems which are used in a wide variety of industries, including the steel, electronics, chemical, automotive and telecommunications industries.

In the 2016 financial year, Heraeus generated revenues without precious metals of €2.0 bn and a total revenue of €21.5 bn. With approximately 12,400 employees worldwide in more than 100 subsidiaries in 40 countries, Heraeus holds a leading position in its global markets. In 2016, the Foundation for Family Businesses named Heraeus as one of the “Top 10 Family Businesses” in Germany.

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