

## Reliance New Energy Solar Ltd becomes the lead investor in the Fraunhofer spin-off NexWafe



*Image 1: The Fraunhofer Founders Award 2020 was presented as part of the digital Fraunhofer Symposium "Netzwerk"*

**NexWafe GmbH (NexWafe)**, a spin-off from the Fraunhofer Institute for Solar Energy Systems ISE, announced the induction of Reliance New Energy Solar Limited (RNESSL), a wholly owned subsidiary of Reliance Industries Limited (Reliance) as a strategic lead investor in its EUR 39 million (\$45 million) Series C financing round with an investment of EUR 25 million (\$29 million) in phase one.

NexWafe is designing, developing and piloting an innovative process to manufacture ultra-thin, highly efficient, monocrystalline green solar wafers to design photovoltaics in a more sustainable and efficient way. The patented technology makes it possible to reduce production costs drastically and, in the long term, to establish solar power as the cheapest source of renewable energy. Reliance's investment will accelerate the product and technology development process at NexWafe and the commercial development of photovoltaic products on prototype lines in Freiburg.

In addition, a strategic partnership agreement has been signed for the joint mega-scale development and commercialization of highly efficient monocrystalline "green" solar wafer technology in India. NexWafe's unique patented technology is expected to drastically cut wafer production costs, making solar photovoltaics the lowest-cost form of renewable energy available. The objective is to increase India's solar capacity by 100 gigawatts by 2030. At present, NexWafe in Freiburg is working on developing its prototypes for commercial applications.

The Fraunhofer spin-off NexWafe GmbH, based in Freiburg, won the renowned Fraunhofer Founder Award 2020 with an innovative process for the low-cost and resource-efficient manufacture of silicon wafers for photovoltaic plants. This innovative technology can be used to produce any desired wafer thickness for a fraction of the energy, material and capital costs required so far.

**Disruptive potential for renewable energy production:** The innovative new process is reducing the costs involved in manufacturing photovoltaic wafers by 50 percent and cutting the CO<sub>2</sub> emissions generated during manufacture by 70 percent. The significant cost benefits that the NexWafe technology is able to achieve are opening up a new future perspective in solar cell production, especially for the technology-oriented companies in Germany.

**Cutting edge technology as a location advantage:** The NexWafe process is resolving a structural problem in the photovoltaic sector by means of a Fraunhofer technology and opening up new perspectives for an entire industry: »The kerfless wafer process developed by NexWafe has the potential to shift the competition in the photovoltaic industry all over the world, from low manufacturing costs to the innovative technologies involved. NexWafe shows that the technological advantage gained through research can be a crucial factor for the future of Germany as a location and is therefore a role model for spin-offs from the scientific world.

*Fraunhofer is one of the world's largest applied R&D organizations, with nearly 80 research units in all sectors of industry, 29000 employees and an annual outlay of Euros 2.8 Billion. Of this sum, 2.4 Billion Euros is generated through contract research. Our global footprint is very strong, with offices and research centers in the Europe, USA and Asia. Some of our renowned innovations are the MP3 format, the white LED, the smallest of cameras. In the field of renewable, Fraunhofer holds the world record in solar cell efficiency, battery storage, and cover the entire spectrum of energy (Grid, Renewables, Storage, etc) across the value chain from materials to testing and certification. Fraunhofer has been active in India since the past several years, bringing innovative technologies and research competence to India. Fraunhofer in India is the chosen R&D and innovation technology partner of some of the major players in the field of Energy, Environment, Automotive, Electro-mobility, Materials, Production Technology and Smart Cities working with Industry, Government and Public Sector.*

Kindly get in touch with us if you are interested in this technology or require further information.

Thanks and Regards,

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