

# PRESS RELEASE

### FRAUNHOFER FEP AND CTF SOLAR GMBH START PROJECT TO DEVELOP HIGHLY EFFICIENT THIN FILM SOLAR MODULES

On 6 July the Fraunhofer Institute for Electron Beam and Plasma Technology FEP and the CTF Solar GmbH signed a project agreement to jointly develop high-productivity technologies for manufacturing efficient thin film solar modules.

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The aim of the joint project, with an annual funding of more than 1 million euros, is to further develop the complete process chain, under production-like conditions, from the glass panel to the finished thin film solar module.

The Fraunhofer FEP has in-depth experience with the deposition of indium-free, transparent, conducting front contact layers and active absorber materials as well as with high-productivity back contact deposition. On pilot plants the researchers can develop the technology for coating large surfaces in a vacuum under industry-like

conditions. CTF Solar GmbH, which supplies equipment as well as technical and engineering services in the area of thin film technology, is interested in expanding its product portfolio with innovative solutions including complete thin film solar module production lines and therefore found Fraunhofer FEP, with its expertise in coating large surfaces, to be an ideal research partner.

The research project will bring together and optimize all the steps in the process chain, from the starting materials to the finished solar modules. The technology development will be aided by direct analytical characterization to give the scientists a better understanding of the effect of process parameters on the structure and interfaces of the solar cells. This knowledge will allow enhancement of the effectiveness of the solar cells.



## **PRESS RELEASE** 06 I 2012

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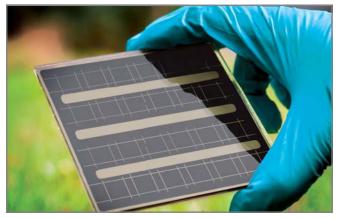
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#### About CTF Solar GmbH:

The CTF Solar GmbH is based in Dresden and Frankfurt am Main (Germany) and supplies equipment as well as technical and engineering services, including complete production lines, in the area of thin film technology for manufacturing solar modules. The company has an experienced team of engineers and scientists and continues to further develop the most promising worldwide thin film technology (cadmium telluride) by undertaking innovative R&D work.

#### About the Fraunhofer FEP:

The Fraunhofer Institute for Electron Beam and Plasma Technology FEP in Dresden (Germany) develops methods for large-area vacuum coating and the utilization of electron beams and plasmas in production processes. The focus is on highly efficient coating processes for a wide range of substrates including polymer films, glass, metal strips and sheets, and special components.



Thin film solar cells, which will be developed by Fraunhofer FEP and the CTF Solar GmbH in a research project, promise lower production cost and improved solar energy conversion efficiency. | © Fraunhofer FEP

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