



DuPont and Applied Materials Collaborate to Boost Solar Cell Efficiency

Multiple Printing Technology Can Drive Down Power Cost.

Wilmington, DE and Santa Clara, CA (Vocus) September 18, 2009 -- DuPont and Applied Materials, Inc. announced a collaboration to advance multiple printing technology that is expected to increase the absolute efficiency of crystalline silicon (c-Si) photovoltaic (PV) solar cells. By increasing the efficiency and yield of solar cells and modules, PV power can become more cost effective versus other forms of energy.

"We're working with innovative suppliers like DuPont to integrate highly customized material formulations with our leading-edge solar manufacturing systems to drive down the cost per watt of solar energy," said Charles Gay, president of Applied Solar at Applied Materials. "By using our Baccini back end systems equipped with Esatto Technology™ and DuPont™ Solamet® photovoltaic metallization paste, customers can achieve the precision alignment, repeatability and process control that enables successful multiple printing."

"This collaborative technology will optimize the efficiency of solar cells and meet the needs of the market by ultimately lowering total system cost," said Marc Doyle, global business director - DuPont Photovoltaic Solutions. "By working together, we can deliver photovoltaic materials and technologies to our customers better and faster."

The collaboration reflects DuPont's recently announced commitment to focus on meeting four emerging global trends, one of which is decreasing dependence on fossil fuels.

Photovoltaic metallization pastes are screen printed onto the surface of solar cells in a pattern of grid lines which serve to collect electricity produced by the cell and transport it out. To maximize efficiency in the solar cell, the multiple printing technology will reduce the shadowing effect of wide grid lines on solar cells and improve electrical conductivity. Applied Baccini Esatto Technology™ together with DuPont™ Solamet® photovoltaic metallization pastes enables narrower and taller grid lines to be precisely printed in two or more layers. In addition to demanding precise alignment of the patterning system, multiple printing requires the paste to be finely tuned to perform consistently during all printing passes.

Applied Materials, Inc. is the global leader in Nanomanufacturing Technology™ solutions with a broad portfolio of innovative equipment, service and software products for the fabrication of semiconductor chips, flat panels, solar photovoltaic cells, flexible electronics and energy efficient glass. At Applied Materials, we apply Nanomanufacturing Technology to improve the way people live. Learn more at www.appliedmaterials.com.

DuPont™ Solamet® is part of a broad and growing portfolio of products represented by DuPont Photovoltaic Solutions, which connects science and technology from across the company on a global scale to help support the dramatic growth in the photovoltaic industry. To learn more, please visit <http://photovoltaics.dupont.com>.

DuPont is a science-based products and services company. Founded in 1802, DuPont puts science to work by creating sustainable solutions essential to a better, safer, healthier life for people everywhere. Operating in more than 70 countries, DuPont offers a wide range of innovative products and services for markets including



agriculture and food; building and construction; communications; and transportation.

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http://www2.dupont.com/Photovoltaics/en_US/products_services/metallization/solamet.html

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