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For Immediate Release

Banpil Photonics, Inc granted two additional patents for nano-enabled high-efficiency solar cells

SANTA CLARA, California – November 20, 2012 - Banpil Photonics, Inc., a leading company expanding the boundaries of optics and electronics through innovations, today announced that the United States Patent and Trademark Office has granted it US Patents 8,309,843 and 8,314,327 on photovoltaic devices that utilize nanotechnology to fabricate third generation significantly high-efficiency solar cells making then extremely low-cost and approaching grid parity.

Banpil's novel structures of photovoltaic (PV or solar) cells with several orders of magnitude higher efficiency, have much larger power generation capability per unit physical area over conventional PV cells. This is a platform technology independent of materials used and capable of supporting nano-photovoltaics, CIGS (copper indium gallium selenide), semiconductors, and even plastics, which will make it possible to build solar cells directly on building materials and make self-powered buildings a reality.

In addition, the Banpil innovation allows for PV cells that are flexible and lightweight with exciting new possibilities for applications ranging from integration into clothing to power personal wearable electronics of the future, to automobile paints blended with solar cells for Electric Vehicles (EV). Other applications for the high-efficiency, high-durability cells include commercial, residential, and industrial power generation that could last up to 50 years without replacement.

A key advantage of the Banpil PV cell is that it can be fabricated with current matured semiconductor process technologies, making it low-cost as it will easily scale-up to mass-production. The innovation offers solar cells which can capture most wavelengths of the solar spectrum and ideally achieve >80% conversion efficiency, to generate power 100 times per unit area beyond conventional PV cells. Further, the Banpil PV cell structure will enable generation of power even when the sun is not out, making solar viable in cloudy geographic regions. This will usher in a new era of PV systems that operate 24/7, in cloudy and overcast conditions eliminating the need for backup systems today, and also expanding the choice of locations for solar farms closer to population centers, where demand is highest, further reducing infrastructure and transmission costs.

"We are extremely excited to contribute our innovations in renewable energy towards the future of the planet's demanding energy challenges," noted Banpil CEO Dr. Achyut Dutta. "Banpil's innovations with nano-enabled photovoltaic devices are a transformative addition to the solar industry's quest for cost-effective high-efficiency solutions that are scalable. We now invite solar companies to exploit this technology for their next generation solar applications." According to MarketsandMarkets, the global solar energy market will reach $75.2 Billion with annual installations reaching 227 GW by 2016.

Banpil has already demonstrated its groundbreaking photovoltaic devices technology in its own high-efficiency solar cells. The company welcomes opportunities to work with application developers to explore new or enhanced applications including joint product development, technology licensing, strategic manufacturing partnerships as well as investors.

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About Banpil Photonics, Inc.

Banpil Photonics is expanding the boundaries of optics and electronics through innovations. Banpil develops and manufactures next generation multispectral image sensors for automotive & medical imaging systems, security & surveillance, and machine vision applications; high-efficiency energy harvesting devices for energy applications; and low-power, high-speed electrical interconnects for chip-to-chip, chip-to-board, board-to-board, and rack-to-rack applications in high performance computing and networking.. The company has an extensive IP portfolio of these innovations available for licensing. For more information, visit www.banpil.com.

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