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Universal Display Corporation Awarded Department of Energy SBIR Phase I Contract for White OLED Lighting

COMPANY TO EXPLORE A NOVEL
LIGHT OUTCOUPLING
ENHANCEMENT TECHNIQUE TO
IMPROVE EXTERNAL QUANTUM
EFFICIENCY

EWING, N.J.--([BUSINESS WIRE](#))--Universal Display Corporation (NASDAQ:PANL), an innovator behind today's and tomorrow's displays and lighting through its UniversalPHOLED™ phosphorescent OLED technology, today announced that it has been awarded a \$99,919 Small Business Innovation Research (SBIR) Phase I grant from the U.S. Department of Energy (DOE) under the Department's Solid State Lighting program.

"A tremendous opportunity exists for white OLED lighting products, based on their potential energy efficiency and environmental advantages as compared to existing lighting products. Through programs such as this one, we look forward to demonstrating further progress toward the DOE's commercial targets for solid-state white OLED lighting."

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The program, titled 'Enhanced Light Outcoupling in WOLEDs', will focus on demonstrating a novel technique to improve the optical outcoupling efficiency of a white OLED. Through the use of this novel technique, Universal Display intends to double the outcoupling efficiency, resulting in an external quantum efficiency of about 50%.

Using the Company's high-efficiency UniversalPHOLED™ technology, white OLEDs can achieve up to a 100% internal quantum efficiency - meaning that all of the electrical energy can be converted into light. Typically, only 20% of that light is directed through the front surface as useful light; however, an external component is often added to OLED panels to collect and emit more light. By comparison, the novel approach proposed for this project involves integrating an outcoupling enhancement directly within the layers of the OLED device. This approach has the potential to double the light output, while preserving the OLED's thin form factor, and may also be significantly more cost effective to manufacture. Such improvements are important for white OLEDs to achieve the DOE's targets of 150 lumens per watt (lm/W) with a cost of less than \$50/Kilolumen.

"We are pleased to continue our work on energy-efficient white OLED lighting for the U.S. Department of Energy. With their support, we have recently achieved a number of key technical milestones, including the demonstration of a research lighting panel with 102 lumens per watt," said Steven V. Abramson, Universal Display's Chief Executive Officer and President. "A tremendous opportunity exists for white OLED lighting products, based on their potential energy efficiency and environmental advantages as compared to existing lighting products. Through programs such as this one, we look forward to demonstrating further progress toward the DOE's commercial targets for solid-state white OLED lighting."

Power-efficient white OLEDs may reduce energy consumption dramatically in a myriad of lighting applications. They may also lower the amount of by-product heat generated by lighting devices, further reducing energy and environmental burdens. White OLEDs are also environmentally benign, when compared to mercury-containing fluorescent lamps and newer compact fluorescent lamps (CFLs). Combining these important 'green' features with a very thin, lightweight and durable form factor, white OLEDs offer significant new lighting design opportunities.

To see how Universal Display Corporation is changing the face of the display and lighting industries, please visit the Company at www.universaldisplay.com.

About Universal Display Corporation

Universal Display Corporation is a world leader in developing and commercializing innovative OLED technologies and materials for use in flat panel displays, solid-state lighting products, electronic communications and other opto-electronic devices. Universal Display is working with a network of world-class organizations, including Princeton University, the University of Southern California, the University of Michigan, and PPG Industries, Inc. Universal Display has also established numerous commercial relationships with companies such as Chi Mei EL Corporation, DuPont Displays, Inc., Konica Minolta Technology Center, Inc., LG Display Co., Ltd., Samsung SDI Co., Seiko Epson Corporation, Sony Corporation, Tohoku Pioneer Corporation and Toyota Industries Corporation. Universal Display currently owns or has exclusive, co-exclusive or sole license rights with respect to more than 850 issued and pending patents worldwide.

Universal Display is located in the Princeton Crossroads Corporate Center in Ewing, New Jersey. Universal Display's state-of-the-art facility is designed to further technology and materials development, technology transfer to manufacturing partners and work with customers to develop OLED products that meet their needs. Visit Universal Display on the Web at www.universaldisplay.com.

All statements in this document that are not historical, such as those relating to Universal Display Corporation's technologies and potential applications of those technologies, are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. You are cautioned not to place undue reliance on any forward-looking statements in this document, as they reflect Universal Display Corporation's current views with respect to future events and are subject to risks and uncertainties that could cause actual results to differ materially from those contemplated. These risks and uncertainties are discussed in greater detail in Universal Display Corporation's periodic reports on Form 10-K and Form 10-Q filed with the Securities and Exchange Commission, including, in particular, the section entitled "Risk Factors" in Universal Display Corporation's annual report on Form 10-K for the year ended December 31, 2007. Universal Display Corporation disclaims any obligation to update any forward-looking statement contained in this document.

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