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DOE Docket No.: S-131,629

CONFIRMATORY LICENSE

Application for: LOW-BANDGAP, MONOLITHIC, MULTI-BANDGAP,

OPTOELECTRONIC DEVICES

Inventor(s): Mark W. Wanlass and Jeffrey J. Carapella

Serial No.: 13/664,142

Filing Date: October 30, 2012 Contract No.: DE-AC36-08GO28308

Contractor: Alliance for Sustainable Energy, LLC

The invention identified above is a "Subject Invention" under the above-numbered contract. A copy of the provisions of the above-numbered contract governing patent rights in the Subject Invention at the time the invention was made has been submitted to the U.S. Department of Energy.

The Contractor hereby confirms that under the provisions of the above-numbered contract governing patent rights, it has granted to the Government a nonexclusive, nontransferable, irrevocable, paid-up license to practice or to have practiced for or on behalf of the United States the subject invention throughout the world. This license applies to the invention in the above-identified patent application and any and all divisions or continuations thereof and any resulting patent or reissue patent which may be granted thereon.

It is understood and agreed that this document does not preclude the Government from asserting rights under the provisions of said contract or any other agreement between the Government and the Contractor, or any other rights of the Government with respect to the above-identified invention.

The Contractor hereby grants the Government an irrevocable power to inspect and make copies of the above-identified application.

Signed this 20th day of December, 2012.

Paul J. White

Associate General Counsel,

Intellectual Property

National Renewable Energy Laboratory 1617 Cole Blvd. Golden, CO 80401

> PATENT REEL: 030530 FRAME: 0871

RECORDED: 06/03/2013