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FOR IMMEDIATE RELEASE

Wind Tunnel Testing Reveals Challenges and Opportunities for Rooftop Solar Arrays

SunLink and Top Industry Experts Release First in Series of Publications Based on Seven Years of Proprietary R&D

San Rafael, Calif., August 9, 2011 – SunLink Corporation and its R&D partners at the University of Western Ontario's Boundary Layer Wind Tunnel Laboratory (BLWTL) and structural engineering firm Rutherford and Chekene (R&C) today released the first in what will be a series of publications focused on designing for wind loads on solar arrays: *Rooftop Solar Arrays and Wind Loading: A Primer on Using Wind Tunnel Testing as a Basis for Code Compliant Design per ASCE 7*.

The *Rooftop Solar Arrays and Wind Loading* primer is intended to assist building officials, structural engineers and other industry professionals tasked with reviewing proposed PV array systems with issues related to wind loading and on the appropriate use of wind tunnel testing as a basis for design. It also addresses the applicability of Computational Fluid Dynamics (CFD), which is sometimes proposed as an alternative to testing.

"Over the last seven years, SunLink has made substantial investments in what we believe to be the most extensive R&D program in the industry aimed at understanding the effects of wind on rooftop solar arrays," says Sunlink CEO, Christopher Tilley. "We feel the results of this program are important to share with the industry as together we work to design PV systems that are both more cost effective and safe."

Given the complexity of the aerodynamics and structural analysis involved in this topic, SunLink sought guidance from Dr. Greg Kopp, director of the BLWTL, and Dr. Joe Maffei, principal of R&C, both foremost experts in the field.

"It has been refreshing to work with a company that is truly interested in understanding the science of wind loads rather than just seeking specific outcomes. SunLink's mindset enabled us to design and execute a multi-year, comprehensive wind tunnel test program, which has provided us with unparalleled insight into the aerodynamics and loading on rooftop solar arrays," explains Dr. Kopp. "The extent of the test data set generated as part of this program likely exceeds that used as the basis for much of the wind design values in the current building code. We look forward to publishing the results of this research over the next few years."

"SunLink approached R&C to collaborate with its internal R&D team and Dr. Kopp to develop a procedure for structural design of rooftop solar arrays that meets the requirements and intent of the building code," recalls Dr. Maffei. "Because of the complexities of structural behavior that racking systems exhibit and the lack of directly applicable guidance in the building code, the task has been both challenging and interesting. We are excited to have the opportunity to share the results of our work with the industry through future publications."

Those interested in receiving future publications in the series or learning about related webinars and workshops can register at www.sunlink.com/pvstructuralpubs.

About the Boundary Layer Wind Tunnel Laboratory and Gregory Kopp, PhD, PEng

The University of Western Ontario's Boundary Layer Wind Tunnel Laboratory (BLWTL) was one of the first wind engineering test laboratories in the world. BLWTL pioneered many of the test methods used to establish wind-induced loads and responses, and has tested many of the world's tallest buildings and longest bridges. More importantly, perhaps, is that the BLWTL performed the tests that led to the modern (and still current) form of the building code provisions for low-rise buildings in the late 1970s. Dr. Gregory Kopp is Director of the BLWTL and a professor at the University of Western Ontario. He holds a Canada Research Chair in Wind Engineering, is the Chair of the ASCE's Environmental Wind Engineering Committee and the Task Committee on Computer-Aided Wind Engineering, and is President-Elect of the American Association of Wind Engineers. He has significant experience in wind tunnel testing of solar arrays, low-rise buildings, roof-top equipment on low-rise buildings and a range of other structures.

About Rutherford and Chekene and Joe Maffei, SE, PhD, LEED AP

Since 2008, in collaboration with SunLink and building authorities, Rutherford and Chekene has led the development of structural analysis modeling and engineering design procedures for solar arrays. R&C principal Dr. Joe Maffei is an expert on implementing advanced methods of structural analysis and design. He has worked closely with building officials on criteria for accepting non-prescriptive or "performance-based" design procedures. Dr. Maffei has been appointed to committees writing building code provisions by the U.S. Building Seismic Safety Council (BSSC), the Structural Engineers Association of California (SEAOC), the American Concrete Institute (ACI), and the Federation International du Beton.

About SunLink

SunLink Corporation was founded with a deep commitment to making renewable energy economically viable and attractive to mainstream American business. Applying more than 130 years of combined engineering and product design experience, SunLink has developed balance of system solutions that reduce the cost of installation, ease permitting and enhance system design flexibility. Our industry-leading roof and ground mounting systems, combiner boxes, and wire management tools have been proven on more than 200 MW of commercial projects at 1,000+ sites across North America. SunLink's experienced engineering team provides comprehensive customer service for each installation. For more information visit www.sunlink.com.

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