Boeing Licenses XR700 Solar Power Technology to Stirling Energy Systems

SEAL BEACH, Calif., March 30, 2010 -- The Boeing Company [NYSE: BA] and Stirling Energy Systems have formed a strategic partnership to complete the commercialization and deployment of Boeing's XR700 high-concentration photovoltaic (HCPV) solar power technology. Through a licensing agreement with Boeing, Stirling has acquired the sole rights to develop, manufacture and deploy the HCPV product globally.

Stirling will lead the commercialization process, with Boeing providing technical program development and engineering expertise under a contracting partnership. Tessera Solar, a Stirling affiliate, will be responsible for development, construction and operation of solar power facilities using the XR700.

Boeing began developing the XR700 technology in 2007 in collaboration with the U.S. Department of Energy's Solar Energy Technologies Program. The technology development phase is expected to continue for the next two years before achieving commercial-scale deployment in 2012.

"Boeing Defense, Space & Security's Energy Solutions business seeks to create new products and services in emerging energy-technology markets, including renewable energy and Smart Grid," said Tim Noonan, vice president, Boeing Advanced Global Services and Support. "Working with Stirling Energy Systems, an established leader in concentrating solar power generation, allows us to leverage Boeing's leadership in systems development, materials expertise, and reliability engineering to create jobs and to help America's vital energy infrastructure go green."

The XR700 technology uses a non-imaging optical system to concentrate sunlight by a factor of 700 onto high-efficiency, triple-junction solar cells. The cells currently are supplied by Boeing subsidiary Spectrolab, which in 2009 achieved the world record for terrestrial concentrator solar cell efficiency, at 41.6 percent.

Boeing is in the development and construction phase of a 100-kilowatt facility at California State University, Northridge, using the HCPV solar power technology. Boeing and its subcontractors also have completed the development of an automated 2-megawatt per year production factory in Detroit that is producing and assembling the solar arrays for the Northridge solar facility. Installation of the solar arrays at the Northridge facility is expected to begin in the second quarter of 2010, with the solar facility expected to be operational during the third quarter.

"Boeing's selection of Stirling and Tessera Solar as strategic partners for their solar power technology demonstrates the strength of the businesses' technology and development expertise," said Ian Simington, chief executive of the Solar Division of NTR plc, majority shareholder of Stirling and Tessera Solar. "This agreement will complement Stirling and Tessera Solar's existing utility-scale offering and strengthen their position as solar energy leaders."

The HCPV product will extend Stirling's solar energy portfolio and is expected to give Tessera Solar access to more project-development opportunities, especially in the distributed-generation sector. Tessera Solar will continue to deploy its SunCatcher™ -- a solar power system that uses a Stirling engine to convert the sun's heat to electricity -- for large-scale projects.

Later this year, Stirling and Tessera Solar expect to begin construction on three large SunCatcher power projects, totaling over 1,600 megawatts, in Texas and California. The XR700 HCPV technology will be aimed at smaller-scale projects of 50 megawatts and less.

"This venture with Boeing represents an ideal opportunity for Stirling to extend our reach into the solar market for future technology deployments with a product that shares many of the SunCatcher's key differentiating features -- scalability, low water use and high efficiency," said Stirling CEO Steve Cowman.

"We are pleased to obtain the rights to deploy a complementary technology to the SunCatcher and therefore offer an additional product to suit our potential customers that are interested in smaller-scale projects," said Tessera Solar North America CEO Bob Lukefahr.

Stirling Energy Systems is the global supplier of the SunCatcher™ solar dish engine system, the latest innovation in modular Concentrating Solar Power (CSP), and next generation of grid-quality, solar-electric power generation. The Stirling SunCatcher™ combines a mirrored concentrator dish with a high-efficiency Stirling engine to track, collect and convert the sun's thermal energy to grid-quality electricity. The SunCatcher™ technology has significant advantages over other CSP technology, including zero water use for power production, minimal impact to the environment, the highest electric efficiency and cost competitiveness. Founded in 1996, the company maintains corporate headquarters in Scottsdale, Ariz., and engineering and test site operations at Sandia National Laboratories in Albuquerque, N.M. NTR owns a controlling stake in STIRLING Inc.

NTR plc, the international renewable energy group, builds and runs green energy and resource-sustaining businesses. Founded in 1978, NTR has evolved from being a developer and operator of infrastructure in Ireland to an international developer and operator of renewable energy (wind, solar and ethanol) and sustainable waste management businesses in the United States, United Kingdom, and Ireland. The company employs more than 4,100 people.

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