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## UBC Selects Nexterra/GE Biomass Power System for Campus Green Energy Project

**Vancouver, BC – February 15, 2010** – The University of British Columbia (UBC) and Nexterra Systems Corp., a leading biomass gasification company, announced today that UBC will install and demonstrate a unique, on-site biomass-fuelled combined heat and power (CHP) solution developed by Nexterra and GE Power & Water's gas engine division. The CHP system will be located at UBC's Vancouver campus, where it will provide clean, renewable heat and electricity for the campus, while offering a platform for bioenergy research.

The new CHP system, the first of its kind in North America, combines Nexterra gasification and syngas conditioning technologies with a GE high efficiency Jenbacher gas engine. Woody biomass will be gasified and converted into clean synthetic gas (or "syngas") that will be directly fired into a gas engine. The CHP system will be capable of providing very high net efficiencies – up to 65 percent in cogeneration mode. The system will produce renewable heat and power while surpassing Metro Vancouver's air quality standards.

The solution will produce 2 megawatts of clean, cost-effective electricity that will offset UBC's existing power consumption. This is the equivalent electricity required to power about 1500 homes. The system will also generate enough steam to displace up to 12 percent of the natural gas that UBC uses for campus heating, thereby reducing greenhouse gas emissions by up to 4500 tonnes per year. This is the equivalent of taking more than 1100 cars off the road.

"This project demonstrates UBC's leadership in sustainability and our concept of the campus as a living laboratory," said UBC President Prof. Stephen Toope. "This groundbreaking partnership is helping UBC achieve its sustainability goals through the convergence of research, operations and industry in the bioenergy sphere."

"After working very closely with Nexterra, we are very pleased to be in the commercialization phase of this unique power solution," says Prady Iyyanki, CEO, gas engines for GE Power & Water. "Many of GE's customers are looking for a biomass solution to help them achieve their renewable energy objectives. We believe this new CHP solution represents a potential breakthrough for biomass power generation and look forward to working with UBC and Nexterra to successfully complete the demonstration."

"This project represents a significant milestone for Nexterra and we are proud to be part of such a high caliber team that includes UBC, GE and FPInnovations," said Jonathan Rhone, President and CEO of Nexterra. "There is global demand for a new standard in biomass CHP systems and we believe that our technology is well positioned as a game-changer with tremendous replication potential."

UBC is also collaborating with FPInnovations to house the CHP System in a building designed and constructed using cross-laminate timber (CLT). CLT is a new solid wood building material that can be used as a low carbon, renewable alternative to steel frame construction. This will be one of the first CLT buildings in North America and will demonstrate its market potential for the forest industry.

Funding support is being provided from the following organizations: Government of Canada's Clean Energy Fund administered through Natural Resources Canada; Sustainable Development Technology Canada (SDTC), an arm's-length, not-for-profit corporation created by the Government of Canada; the BC Bioenergy Network (BCBN); and FPInnovations.







**About The University of British Columbia** – The University of British Columbia is one of Canada's largest and most prestigious public research and teaching institutions. Located in the Pacific Rim gateway of Vancouver, one of the world's great cities, and in the Interior city of Kelowna, UBC is a global centre of research and learning. UBC is consistently ranked among the world's 40 best universities, one of only two Canadian universities in this category. It is ranked within the top 10 North American universities, and first among Canadian universities, in terms of the number of U.S. life sciences patents and the quality of activity generated from those patents, including spin-off company creation. From its beginnings as an early adopter in campus sustainability, UBC has fostered a thriving community of sustainability researchers, teachers and students, and operational experts. UBC is now turning itself into a living laboratory and innovation hub in environmental sustainability by combining its sustainability leadership in teaching, research, and operations. For more information: www.ubc.ca

**About Nexterra Systems Corp**. – Nexterra Systems is a leading supplier of biomass gasification solutions that generate renewable heat and power for institutional and industrial customers. Nexterra systems are cleaner, more versatile and more efficient than conventional combustion equipment. The company's thermal gasification systems are commercially proven and have been selected by public and private customers, such as the US Department of Energy, Johnson Controls, University of South Carolina, Dockside Green, Kruger Products, the University of Northern BC and Tolko Industries. Nexterra is now developing a new standard of small-scale heat and power systems (2-10 MWe) by direct firing syngas into GE's high efficiency gas engines. Nexterra is a private company based in Vancouver, Canada. For more information: <u>www.nexterra.ca</u>

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