

## Report by Leading Engineering Firm Verifies Nexterra Biomass Gasification Systems Deliver Superior Air Emissions Performance

**Vancouver, BC, October 26, 2010** – Nexterra Systems Corp. (<a href="www.nexterra.ca">www.nexterra.ca</a>), a leading supplier of biomass gasification heat and power systems, today released the results of an air emissions report developed by Levelton Consultants Ltd., a leading engineering and science consulting firm specializing in air quality assessment and management.

The Levelton study compared air emissions test results from Nexterra's gasification plants with comparable emissions data from conventional combustion plants located in the US and Canada. The report confirms that Nexterra's facilities produce "best in class" air emissions when compared with conventional biomass combustion technologies. For certain types of emissions, Nexterra plants were also found to produce emissions that were equivalent to or lower than natural gas combustion.

## Key findings are as follows:

- Carbon Monoxide (CO) emissions from Nexterra's systems are less than 2% of the CO emissions from the biomass combustion systems surveyed and are equivalent to or lower than emissions associated with fossil fuel generation facilities surveyed.
- Volatile Organic Compounds (VOC) emissions from Nexterra's systems are less than 3% of the VOC emissions from the biomass combustion systems surveyed and are equivalent to or lower than emissions associated with fossil fuel generation facilities surveyed.
- Particulate matter (PM) emissions from Nexterra's systems are equivalent to or better than the best emissions performance demonstrated by biomass combustion systems. In addition, Nexterra's systems exhibit characteristics that make them particularly amenable to good control of PM levels.
- Nitrogen Oxide (NOx) emissions from Nexterra's systems are lower than the US Environmental Protection Agency's (EPA) AP-42 air emissions regulatory factors for biomass systems and, when coupled with Selective Non-Catalytic Reduction (SNCR) technology, can reduce NOx to levels comparable to low NOx natural gas combustion systems.
- Nexterra systems can achieve PM and CO thresholds for the US EPA's proposed Boiler MACT (Maximum Achievable Control Technologies) rules for both Area and Major Source categories. In contrast, many of the biomass combustion systems surveyed do not achieve the proposed Major Source PM limits, and none achieve the proposed Area Source CO limits for new facilities.

"Nexterra has achieved impressive air emissions results at its commercial biomass gasification facilities," said Alex Schutte, Vice President Environment and Energy with Levelton. "The results clearly show that Nexterra plants achieve significantly lower levels of CO and VOC emissions compared to the combustion facilities surveyed. Nexterra facilities also demonstrate particulate emissions performance that is as good as the best performance demonstrated by direct combustion systems and these systems are particularly well suited to





enable good control of PM. Finally, Nexterra's systems, when coupled with SNCR technology, can achieve NOx emissions that are comparable to natural gas."

"Our goal in Vancouver is to become the greenest city in the world, and one way we can do that is by using cleaner energy in our day-to-day lives," said Gregor Robertson, Mayor of the City of Vancouver. "Making the shift away from fossil fuels towards low-emission energy is crucial for us to meet our climate change goals. The technical breakthrough achieved by Nexterra means that biomass energy can play a critical role in helping Vancouver and cities around the world achieve their sustainability targets without compromising air quality."

"Our customers demand cost effective biomass solutions that achieve the highest standards of air emissions, reliability, fuel flexibility and efficiency," said Jonathan Rhone, CEO of Nexterra. "We are fully committed to delivering products that meet and exceed our customers' expectations through continued investment in innovation and product development. This study provides further validation of our technical performance, innovation processes and underscores our commitment to achieving the lowest possible air emissions."

Air emissions from Nexterra systems are routinely tested by qualified third parties at customer sites and at Nexterra's Product Development Center.

To view the executive summary of the report, click here.

**About Levelton Consultants Ltd.** – Levelton Consultants Ltd. is a leading provider of engineering and scientific services, focusing on environment and energy, materials engineering, geotechnical, and building sciences. Levelton are acknowledged experts in air pollution assessment and management, including industrial stack testing, ambient monitoring, emissions control strategy design, emissions inventory development, and dispersion modeling. In addition, Levelton has significant experience assessing the feasibility and environment impacts of biomass energy systems technologies. Levelton is an employee-owned company based in Richmond, British Columbia, Canada. For more information: www.levelton.com

**About Nexterra Systems Corp**. – Nexterra Systems Corp. is a leading supplier of biomass gasification systems that enable industrial and institutional customers to generate clean, low cost renewable heat, power and synthetic gas from biomass fuels. Nexterra's systems have superior life-cycle costs, lower air emissions, higher efficiency and greater fuel flexibility compared to conventional biomass solutions and have been selected by customers and partners including General Electric, US Dept of Energy, University of British Columbia, Johnson Controls and Kruger Products. Nexterra is a private company based in Vancouver, Canada. For more information: www.nexterra.ca

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