

# Media Backgrounder and Fact Sheet

Ministry of Energy, Mines and Petroleum Resources  
Government of British Columbia

## ***B.C. IS LEADING THE CLEAN ENERGY REVOLUTION***

British Columbia is supporting the spirit and vision of the 2010 Winter Games as the most sustainable games in history by leading the way in clean, renewable energy solutions. B.C. is attracting innovative, clean energy solutions that are turning our abundant renewable resources into sustainable, low-carbon power opportunities.

- The Dockside Green harbourside development in Victoria – B.C.'s capital city – is a 1.3 million square foot mixed-use sustainable community that is setting the standard for green residential developments in North America and around the world.
- The entire development is a sustainable, closed-loop design where waste from one area will provide fuel for another
- The centralized biomass-gasification heating plant, custom built by B.C.-based Nexterra Systems Corp., generates low-cost heat and power using locally sourced waste wood. Dockside Green is the first residential project in North America to use this technology, which has resulting in the entire development being greenhouse gas emission (GHG) neutral.
- In terms of water conservation, a sewage treatment plant treats all sewage on site. Treated water is then used in toilets, irrigation, and the project's creeks and ponds system.
- The development is built on a portion of Victoria's inner harbor – an area that was formerly vacant, underutilized and contaminated. By creating a green community on the previously unusable site, Dockside Green is an innovative solution that allows Victoria to get the most value out of the waterfront property.
- The development has achieved platinum LEED (Leadership in Energy and Environmental Design) status with the Canada Green Building Council.

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Nexterra is a leading supplier of biomass gasification solutions that generate heat and power for institutional and industrial customers. Nexterra's gasification technology is fully proven for thermal applications to displace natural gas. Sales to date include projects at Dockside Green, the University of South Carolina, the US Department of Energy's Oak Ridge National Lab, Kruger Products and Tolko Industries.

### VISUAL RESOURCES

- Photographs– contact Jake Jacobs – contact details below.



### Nexterra's Gasifier Technology – How it Works

#### 1. Fuel In-Feed

Locally sourced wood waste (including recycled clean wood construction and municipal tree trimmings) is loaded into the fuel bin and conveyed to a metering bin near the gasifier.

#### 2. Gasifier

Fuel enters the gasifier and goes through several stages including drying, pyrolysis (chemical change brought about by heat), and gasification. The wood is converted into synthetic "syngas" that can be used like natural gas.

#### 3. Oxidizer

The syngas is conveyed into the oxidizer where it is combusted, with the resulting flue gas directed through a boiler.

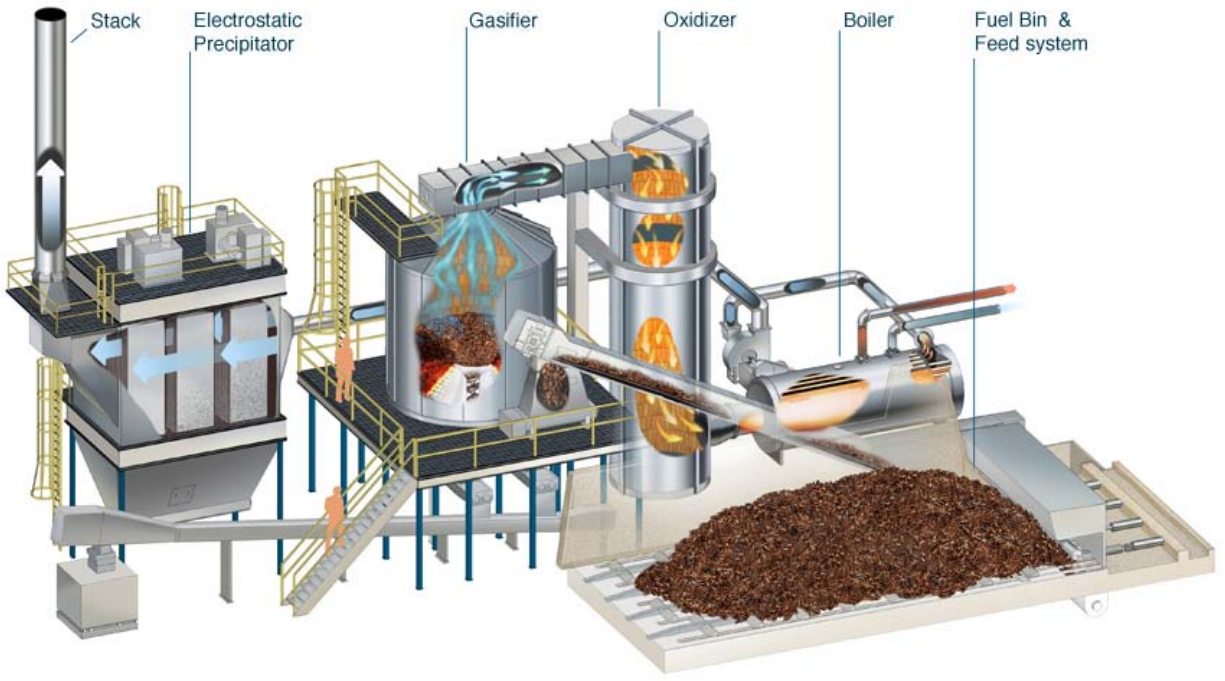
#### 4. Boiler

Hot water from the boiler is transported by an underground pipe to provide heat and hot water for Dockside buildings. The cold water then returns to the boiler to start the heating process again.

#### 5. ESP

After exiting the boiler, the flue gas is cleaned in an electrostatic precipitator (ESP) that filters out virtually all of the remaining particulate matter.





Nexterra Biomass Gasification System at Dockside Green.



(Interior without building shell)



(Outside exterior)

#### WEB RESOURCES

- Dockside Green website - [www.docksidegreen.com](http://www.docksidegreen.com)
- Nexterra Systems Corp - [www.nexterra.ca/](http://www.nexterra.ca/)
- The B.C. Bioenergy Network supports greater investment and innovation in B.C. bioenergy projects and technologies - [www.bcbioenergy.ca](http://www.bcbioenergy.ca)
- In April 2009, the Government of B.C. released an Energy Plan Report on Progress detailing the work that has been done to date in achieving the goals and targets set out in the BC Energy Plan: A Vision for Clean Energy Leadership - [www.energyplan.gov.bc.ca](http://www.energyplan.gov.bc.ca).

#### MEDIA COVERAGE

Waterfront wasteland transformed in Victoria, Vancouver Sun, October 16, 2009

[www.vancouversun.com/business/Waterfront+wasteland+transformed+Victoria/2109378/story.html](http://www.vancouversun.com/business/Waterfront+wasteland+transformed+Victoria/2109378/story.html)

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#### **For assistance or more information:**

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