



**CORIX**<sup>®</sup>

## PROJECT PROFILE



# Docksider Green

Helping create North America's most sustainable community.

### THE CLIENT

Docksider Green is a unique, sustainable community for approximately 2,500 residents which is currently under development near Victoria Harbour on Vancouver Island.

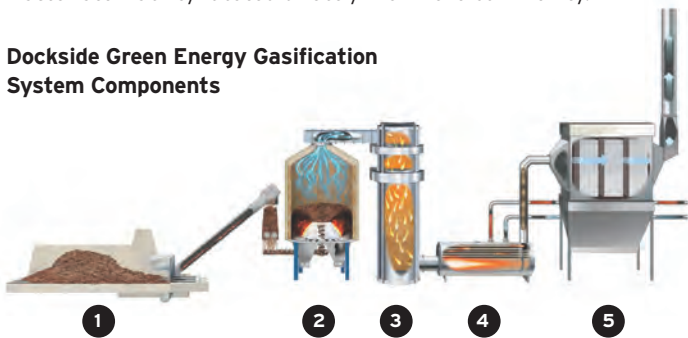
### THE CHALLENGE

Docksider Green is North America's first community to target Leadership in Energy and Environment Design's (LEED) Platinum status, the highest green standard achievable. Accordingly, it sought innovative, largely self-sufficient utility systems that could use waste from one system to fuel others.

### THE SOLUTION

CORIX is a key partner in this unique development, where we are an owner and the manager of the district energy system through Docksider Green Energy. CORIX also operates a state-of-the-art wastewater facility located directly within the community.

### Docksider Green Energy Gasification System Components



- 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 Docksider 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 electrocatalytic precipitator (ESP) that filters out virtually all of the remaining particulate matter.

### Carbon neutral

Docksider Green will be entirely greenhouse gas neutral due to the innovative design of its district energy system. This system uses hydronic (water) energy fuelled by locally-sourced, renewable wood waste to heat homes and for domestic hot water.

### Sustainable

In order to conserve water, the wastewater system combines reclaimed treated water with rainwater to service toilets, rooftop gardens and the community's landscaping features.

### Scalable

Docksider Green's wastewater treatment plant is designed to incorporate a heat recovery system to provide supplemental energy for the district energy system as the community grows.

### THE BOTTOM LINE

By partnering with CORIX, Docksider Green gains expertise, innovation and capabilities that ensure the community will remain a benchmark of sustainability for years to come.

### DELIVERING THE CORIX ADVANTAGE

CORIX is a fully integrated provider of essential utility infrastructure products, services and systems for water, wastewater and sustainable energy. Committed, flexible and extremely innovative, we bring more than 70 years utility infrastructure experience to every project.

Safety, longevity and ease-of-use are always emphasized, to maximize social, economic and environmental returns. We're also backed by British Columbia Investment Management Corporation, a large, stable and well-respected investment firm that manages a globally diversified investment portfolio of nearly \$100 billion. That gives us the financial strength to become a fully invested, long-term partner.