

Hartland Landfill Renewable Natural Gas Initiative

Information Sheet

Capital Regional District | April 2020

Landfills are one of the largest contributors of greenhouse gas emissions in the community. The Hartland Landfill generates approximately 10% of the greenhouse gas emissions in the region. The CRD has a responsibility to ensure we have done everything we can to reduce the greenhouse gas emissions generated by the landfill and to channel them into something that benefits the community.

The current waste-to-electricity equipment at Hartland Landfill can manage about half of the landfill gas being generated and the current equipment is nearing the end of its life. We are using this opportunity to transition to a more sustainable technology and generate greater economic benefits for the region by shifting to renewable natural gas.

What is Renewable Natural Gas?

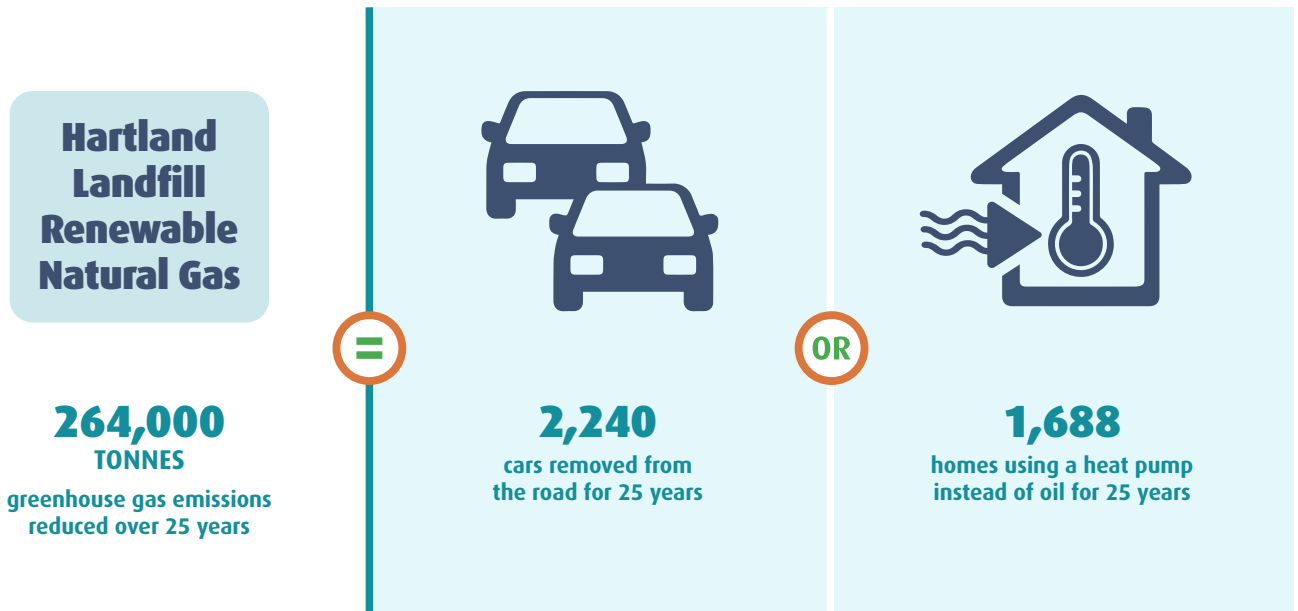
Renewable natural gas is created when landfill gas — the gas generated from decomposing organics waste — is captured and purified. It is then injected into the natural gas distribution system to heat homes and businesses, facilities and fuel vehicles. It is interchangeable with traditional natural gas, but it is generated from biogas produced by the waste in the landfill, rather than fossil fuels.



Renewable natural gas generated from biogas within the landfill is considered carbon neutral, because it is repurposing existing carbon within the carbon cycle, rather than extracting and burning new sources of carbon.

The more renewable natural gas that can be injected into the natural gas system to heat homes, businesses or fuel fleets, the less reliance there is on extracting natural gas from fossil fuels.

The lifecycle analysis indicates the potential reductions in greenhouse gas emissions by shifting to using landfill gas for renewable natural gas, is almost 100 times greater than what can be realized from converting it to from electricity. Over 264,000 tonnes of greenhouse gas emissions are reduced by upgrading landfill gas to renewable natural gas. The electricity comparison is just 2,800 tonnes.



Regional Reduction in Greenhouse Gas Emissions from Hartland Landfill Renewable Natural Gas

Leading The Way to Carbon Neutrality

Climate action and environmental stewardship are embedded in the CRD's strategic priorities, calling for the CRD to take a leadership role towards carbon neutrality.

The Hartland Landfill has long been a world-class example of solid waste management and we are at an important juncture in the evolution of how we manage solid waste in this region. We are charting a course for the future through the development of the new solid waste management plan and embracing the role of solid waste in a circular economy — where goods and materials are used to their fullest extent, time and time again, with only a tiny portion of materials disposed of as “garbage.”

A circular economy is based on three principles: design out waste and pollution, keep products and materials in use, and regenerate natural systems. Ideally, a circular economy results in zero waste.



Making a difference...together

Capital Regional District

625 Fisgard Street, Victoria, BC V8W 1R7
250.360.3000 | www.crd.bc.ca