



REGIONAL DISTRICT
of Fraser-Fort George

Environmental Services

BIOGAS PURCHASE AGREEMENT BACKGROUND

In 2002 the Regional District completed construction of a landfill gas collection system at the Foothills Boulevard Regional Landfill. The main motivation for this project was to reduce greenhouse gas emissions resulting from landfilling of garbage and to take advantage of the landfill gas as an energy source for some type of beneficial use. The Foothills landfill gas system consists of collection infrastructure including vertical wells and horizontal wells which allows for landfill gas to be collected from the landfill and directed towards an enclosed combustion tower where the methane component of landfill gas is destroyed, reducing the greenhouse gas impact of the landfill gas. The system is designed to accommodate connecting to a beneficial use system such as energy production. At this time, the Landfill is generating sufficient volumes of landfill gas that makes beneficial use an attractive option.

The Regional District of Fraser-Fort George is considering entering into an agreement with Fortis Energy Inc. (Fortis) which would see the Regional District supply raw landfill gas for Fortis to process and use in Fortis' Renewable Natural Gas (RNG) program. This type of project would continue to reduce the potential impact of landfill gas as a greenhouse gas and also see the beneficial use of the energy value of landfill gas produced. The term of the agreement will exceed a period of five years with a capital obligation and as such the Local Government Act requires the Regional District to seek the consent of electors prior to being able to execute an agreement with Fortis.

How is landfill gas created at the Foothills Boulevard Regional Landfill?

When garbage decomposes in a landfill a by-product of the decomposition process is methane gas and methane gas is recognized as a significant greenhouse gas in that it is 25 times more potent as a greenhouse gas than carbon dioxide. Methane is also the primary gas in natural gas. By collecting the landfill gas produced at the landfill site and combusting the landfill gas for energy use, the methane component is converted to carbon dioxide thereby reducing its intensity as a greenhouse gas.

At this time, it is estimated that the Foothills Boulevard Regional Landfill will supply between 75,000 GJ to 125,000 GJ of LFG per annum.

What is the benefit of biogas purchase agreement?

Landfill gas collection and combustion at the Foothills Boulevard Regional Landfill is required under Provincial Legislation. The benefit of this agreement is that the energy value of the gas is being realized and will provide a new revenue stream to the Regional District to assist with operating and capital costs associated with the operation, renewal and expansion of the landfill gas collection system.

Why a Partnership with Fortis Energy Inc?

Fortis is a well-established company in BC and is a trusted leader with the knowledge and expertise in the emerging renewable natural gas market including working with local governments on landfill gas projects. Both the Regional District and Fortis share a common goal of reducing greenhouse gas emissions which this project accomplishes.

More information on Fortis' Renewable Natural Gas Program can be found at the following link: <https://www.fortisbc.com/services/sustainable-energy-options/renewable-natural-gas>

What are the benefits of the contract agreement?

Fortis will be making the capital investment for the infrastructure to clean up the landfill gas and inject it into their natural gas distribution system. Fortis estimates its capital investment will be in the order of \$8.5 million dollars. Annual operating costs for this infrastructure are estimated at \$500,000. The Regional District is not required to contribute to any of these costs.

The Regional District will receive payment from Fortis for the supply of the landfill gas. The base rate is \$1.25 per GJ which should see annual revenue of \$75,000 to \$145,000. The base rate is also tied to an inflationary index for the 20-year term of the agreement.

What are the risks of the contract agreement?

If the Regional District is found to be in breach of the contract in that it cannot reliably supply landfill gas and the contract is terminated by Fortis the Regional District will be obligated to pay back the amortized value of assets that Fortis is unable to remove from the site. This is mainly inground infrastructure such as pipe. This cost is estimated to be 5% of the total capital investment that Fortis will be making.

The other commitment in this agreement is that the Regional District is also obligated to ensure the landfill gas collection system is operational over the term of the agreement. This risk is not significant as the Regional District is regulated by the Province to operate and maintain the landfill gas collection system for a period of 30 years beyond the active operation of the landfill which is well beyond the term of this agreement.

Who can I talk with to find out more about this agreement?

If you want to find out more you can contact Ms. Petra Wildauer at 250-960-4483 or by email at pwildauer@rdffg.bc.ca

Links

April 2019 - Staff Report on the Agreement	https://rdffg.civicweb.net/FileStorage/3B723C21192F453D91B83C5DDCF9D903-okjPW-Repl-Fortis%20BC-Landfill%20Gas%20Utilization.pdf
April 2019 - Staff Presentation on the Agreement	https://rdffg.civicweb.net/FileStorage/D1BFECA711054D1BB7CDB845691EDDE3-okjES%20-%20LFG%20with%20Fortis.pdf
April 2019 – Fortis Presentation on the Agreement	https://rdffg.civicweb.net/FileStorage/633AEEF79C10427A95F5F79FA2D35AE3-okjFortis%20Board%20Presentation%2004%2018%2019.pdf
Fortis Renewable Natural Gas Program	https://www.fortisbc.com/services/sustainable-energy-options/renewable-natural-gas