



**REGIONAL DISTRICT
of Fraser-Fort George**

**EMISSION CREDIT TRADING AGREEMENT
BACKGROUND**

In 2001 the Regional District made the decision to construct 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 collection system consists of a series of 16 wells drilled into the landfill with each of these wells connected to a pipeline system which moves the landfill gas from the landfill to an enclosed combustion tower. The system is designed to accommodate additional well installation and redirection of the landfill gas to some type of future beneficial use such as electricity production or greenhouse operations.

The Regional District of Fraser-Fort George is considering entering into an agreement with the Green Municipal Corporation (GMC) which would see the greenhouse gas emission reductions created at the Foothills Boulevard Regional Landfill turned over to the GMC for the purpose of trading these emission reductions, also known as Offsets, in the emerging carbon trading market place. The term of the agreement will exceed a period of five years and as such the *Local Government Act* requires the Regional District to seek the consent of electors.

How are offsets 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 21 times more potent as a greenhouse gas than carbon dioxide. By collecting the landfill gas produced at the landfill site and combusting the landfill gas the methane component is converted to carbon dioxide thereby reducing its intensity as a greenhouse gas.

At this time, 15,000 tonnes of greenhouse gas emissions are collected and combusted annually. As the landfill receives more waste the out put of landfill gas will increase. Current estimates project that by 2030 43,000 tonnes of greenhouse gases will be collected and combusted.

What is the benefit of trading the emission offsets?

The benefit is a new revenue stream. Over a period of 13 years the Regional District has an opportunity to realize over \$3.6 million dollars from the sale of emission offsets. This money will be used to operate and expand the landfill gas management system and pursue beneficial use options thereby reducing the reliance on tax revenues or additional tipping fees.

Why a Partnership with the Green Municipal Corporation?

The Green Municipal (GMC) is a wholly owned subsidiary of the Federation of Canadian (FCM) and was created specifically by the FCM to assist local governments in trading emission reduction offsets. FCM is a national organization of local governments that represents local government interests at the Federal government level. It has been a significant leader in global climate change initiatives for local governments and the creation of the GMC is another example of its leadership in assisting local governments with emission reduction opportunities.

The GMC has developed the expertise, knowledge and contacts in the emerging emission trading market place. In addition to acting as a knowledgeable broker of emission offsets we feel that GMC will represent our interests with the best intentions in trading our offsets.

More information of the GMC and FCM can be found at the following link:
www.fcm.ca/english/View.asp?x=941

Why doesn't the Regional District trade the emission offsets on its own?

This was an option that was considered. Firstly, the emerging offset market place is complex and requires a highly specific skill set. It did not seem reasonable to believe that we could use existing staff to develop the required expertise in a short enough time to be effective. Secondly, the emission offsets created at the Foothills site are not significant enough in size to attract the attention of desirable emission offset purchasing interests on their own. We are simply too small in scale, so by working with the GMC, emission offsets from many local government operations can be pooled together making emission offset trading more attractive and desirable.

What are the benefits of the contract agreement?

The most obvious benefit is the upfront advance of \$525,000 from the Federation of Canadian Municipalities to the Regional District. This up front advance will provide an injection of capital to allow quicker expansion of the landfill gas system thereby increasing the overall collection of landfill gas.

The agreement also guarantees a base rate revenue for the emission offsets so in the event that the market declines, we will have a minimum guaranteed revenue. In addition, should market value increase substantially the contract allows for sharing of the increased revenue between the Regional District and GMC. Finally, as Green Municipal Corporation is a non-profit organization, the agreement also has provisions for sharing surplus revenues that may be experienced by the GMC at the end of the operating year.

The following table demonstrates the projected LFG collection volumes rates and potential income.

YEAR	ANNUAL ESTIMATED QUANTITY of LFG (eCO ₂ tonne)	UNIT PRICE (\$ per eCO ₂ tonne)	Estimated Annual Revenue	Estimated Cumulative Revenue
2008	14,300	\$8.70	\$124,410	\$124,410
2009	14,300	\$8.70	\$124,410	\$248,820
2010	14,300	\$8.70	\$124,410	\$373,230
2011	14,300	\$8.70	\$124,410	\$497,640
2012	33,600	\$8.70	\$292,320	\$789,960
2013	33,600	\$9.60	\$322,560	\$1,112,520
2014	33,600	\$9.60	\$322,560	\$1,435,080
2015	33,600	\$9.60	\$322,560	\$1,757,640
2016	33,600	\$9.60	\$322,560	\$2,080,200
2017	33,600	\$9.60	\$322,560	\$2,402,760
2018	42,900	\$9.60	\$411,840	\$2,814,600
2019	42,900	\$9.60	\$411,840	\$3,226,440
2020	42,900	\$9.60	\$411,840	\$3,638,280

What are the risks of the contract agreement?

The Regional District is obligated to pay back the initial upfront advance of \$525,000 as well as an additional \$100,000 to the GMC. The \$100,000 represents operating costs incurred by the GMC in acting as the broker of the emission offset trading. For the first few years of operation GMC will retain all revenues from the sale of emissions until the payback obligation is complete. We anticipate that this payback will take a period of 4 to 5 years. Once the obligation is cleared the revenues will flow directly to the Regional District. If emission offsets increase in value or the Regional District is able to increase the amount of landfill gas collected than the payback period would be reduced.

The other commitment in this agreement is that the Regional District will be obligated to ensuring that the landfill gas collection system is operated to the best of our abilities in order to maximize the creation of emission reduction offsets. This will result in an increased level of effort in system operations and monitoring and an increase in reporting. It is expected that this increased level of effort will be consistent with the new provincial landfill gas management regulations and this same level of effort will also be required to support future beneficial use systems.

What if the obligations required under the agreement cost more than the revenue coming in?

The basic foundation of this agreement is that it must be commercially viable. So in the event that the agreement no longer makes financial sense, than either party can terminate the agreement.

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

If you want to find out more you can contact Mr. Jim Martin at 250-960-4410 or by email at jmartin@rdffg.bc.ca