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Why burning garbage is the best option

Trash is a resource and burying it is wasteful. Incinerators also produce fewer pollutants than landfills do

BY LOIS E. JACKSON, SPECIAL TO THE SUN SEPTEMBER 29, 2009

Intuitively, burning our garbage seems outdated. Some people believe it's the wrong thing to do.

That's not what leading public health, environment and waste management experts have told Metro Vancouver.

They've provided the region with independent advice that suggests a modern waste-to-energy facility which generates heat and electricity from garbage incineration is the best way to dispose of the trash we can't recycle.

Metro Vancouver residents generate 1.5 tonnes of waste per person each year. That's too much. On the bright side, Metro recycles 55 per cent of that waste -- far better than the 22 per cent Canada-wide average.

Participants at community forums this spring told the region to do better - and our board of directors agrees. We have set an aggressive zero-waste target for waste reduction, aiming to recycle 70 per cent by 2015.

But even if we meet that target, we'll still be left with more than one million tonnes of waste for disposal.

Landfills are the old standby. We've been burying trash -- in someone else's neighbourhood -- for a long time. In addition to using the City of Vancouver's landfill in Delta and our own waste-to-energy facility in Burnaby, the region has, for the past 20 years, been trucking half a million tonnes of trash annually to a Cache Creek landfill.

Last year, because the Belcorp-owned landfill was getting full, we called the best waste management experts in the world to look at alternatives.

One is called Mechanical Biological Treatment, a labour-intensive process that involves a further level of sorting and then a biological treatment that neutralizes waste, reducing further the risks of toxic run-off or air pollution. But the treated trash still ends up in a landfill or is burned for fuel.

Waste-to-energy is a third option.

WTE plants used to be known as "incinerators" -- a word that summons outdated images of everything from backyard burn barrels to giant smoke stacks.

That is not an option we're considering. The modern WTE plants now favoured by Europe's greenest capitals are the safest option for health and environmental risk factors. There are more than 400 waste-to-energy facilities in Europe, in the heart of cities like Paris and Vienna, and in mountain-confined airsheds in Switzerland, Italy and Norway.

We all want to protect air quality in Metro Vancouver and the Fraser Valley.

Unlike landfills, air emissions from waste-to-energy facilities can be continuously monitored and regulated. Even modern landfills emit far more dioxins and other potentially-harmful air pollutants than a new waste-to-energy facility. Our studies show that Metro Vancouver's current waste management system produces only about one per cent of the total air emissions in the Fraser Valley airshed. Our air emissions would remain the same or become even smaller with waste-to-energy.

Waste-to-energy is also the best option for reducing the gases that cause global warming. Dollar for dollar, investments in waste-to-energy will achieve twice the reduction of carbon dioxide compared to mechanical biological treatment.

Metro Vancouver's existing Burnaby waste-to-energy facility -- now more than two decades old -- hasn't led to any human health problems or harmed the environment. But it has helped to reduce garbage disposal costs: the Burnaby facility generated about \$11 million in energy revenues last year, while landfills cost \$30 million.

Garbage is a resource we waste when we bury it in the ground.

One tonne of trash has the energy equivalent of one barrel of oil. Heat from one moderate-sized waste-to-energy facility in this region could be used to heat 46,000 homes with hot water pipes and generate enough electricity for 33,000 homes.

What are the financial implications for taxpayers?

Waste-to-energy comes with a significant up-front capital expense, but it is the least expensive in the long run. A life-cycle analysis shows that, over 35 years, we will spend \$1.7 billion on one medium-sized waste-to-energy facility, \$3 billion on landfills, or \$7.6 billion on mechanical-biological treatment.

That's some of the information in the studies that are now public. No formal decision has been made, but the studies suggest the region should consider building one more waste-to-energy facility. The region will host public consultation meetings in the coming months, to listen to your concerns. And Metro Vancouver's board of directors will take community opinion and priorities into account.

Please help us come to a conclusion that will safeguard our health, honour our environment and fulfill our responsibilities -- to our neighbours and to those who will inherit all that we leave behind.

Join the conversation on Metro Vancouver's website: www.metrovancouver.org

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