

## **Run-of-river greener**

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Dear editor,

In response to Ivan Doumenc's letter, Run-of-river has big impact, published March 18 in the North Island Gazette, it is a well-documented fact that run-of-river projects have one of the smallest carbon footprints of any electricity generating technology available.

The United Kingdom's Parliamentary Office of Science and Technology examined all types of electricity generating technology in 2006 and calculated the total carbon footprint of each. They found coal and gas-fired power plants have the largest carbon footprint, due to the emissions they create during fuel combustion.

Conventional coal systems emit more than 1,000 grams of carbon dioxide per kilowatt-hour of electricity generated.

For gas-fired facilities - like the soon-to-be-retired Burrard Thermal or the rejected Duke Point and Sumas II projects - the carbon footprint (which includes the carbon dioxide emitted during construction) is roughly 500 grams of carbon dioxide per kilowatt-hour of electricity.

The carbon footprint for a typical run-of-river facility, however, is less than five grams of carbon dioxide per kilowatt-hour or 100 times less than gas-fired generation and 200 times less than coal-fired generation.

Run-of-river even has a smaller carbon footprint than hydroelectric mega dams, when the greater amount of steel and concrete required in their construction and the methane emitted from the decomposition of flooded vegetation, are taken into account.

Mega dams with reservoir storage, like those of BC Hydro, have a carbon footprint of 10 to 30 grams of carbon dioxide per kilowatt-hour.

B.C.'s renewable green energy resources have an enormous contribution to make in the fight against global climate change.

If renewable green energy from B.C. was put to work replacing America's reliance on fossil fuels, it would have a significant impact on climate change and create good paying jobs and substantial revenues for the province that could reduce the province's growing debt or help pay for education and health care.

David Field

B.C. Citizens for Green Energy