

## ENVIRONMENT AND SOCIO-ECONOMIC

### Climate and Greenhouse Gas Emissions

**Report:** 21. Peace River Site C Hydro Project Stage 2 - Baseline Greenhouse Gas Emissions Report

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**Summary:** The purpose of this report was to determine the net GHG emissions that would result if the Site C project were constructed and operated over a 100 year lifespan. Emissions were estimated using a computer model developed in accordance with guidelines specified by the Intergovernmental Panel on Climate Change (IPCC). A preliminary inventory of construction activities and related GHG emissions associated with fuel and electricity consumption rates was also included.

The conservative (“worst-case”) emissions estimate suggests that Site C would emit a net total of approximately four million tonnes of GHG, or approximately 41,000 tonnes per year over its 100 year lifespan. Since Site C would produce approximately 4600 GWh of energy per year, the emissions intensity associated with energy produced by Site C would be approximately 9 tonnes of GHG per GWh, which is within the range expected for renewable generation technologies, such as wind.