

CARBON REBATES UNLIKELY TO UNDERMINE INCENTIVES

Effective April 1, 2019 the Government of Canada will tax carbon emissions in Saskatchewan, Manitoba, Ontario, and New Brunswick. Ninety per cent of the revenue will be rebated directly to households. By 2022, the rebate to Saskatchewan households will average \$1,400 annually.

Will carbon rebates undermine the incentive to lower emissions when carbon taxes are levied across Canada? Many are concerned. Alberta in 2005 and 2006 provides a unique natural experiment to explore the effect of rising energy costs combined with large cash transfers.

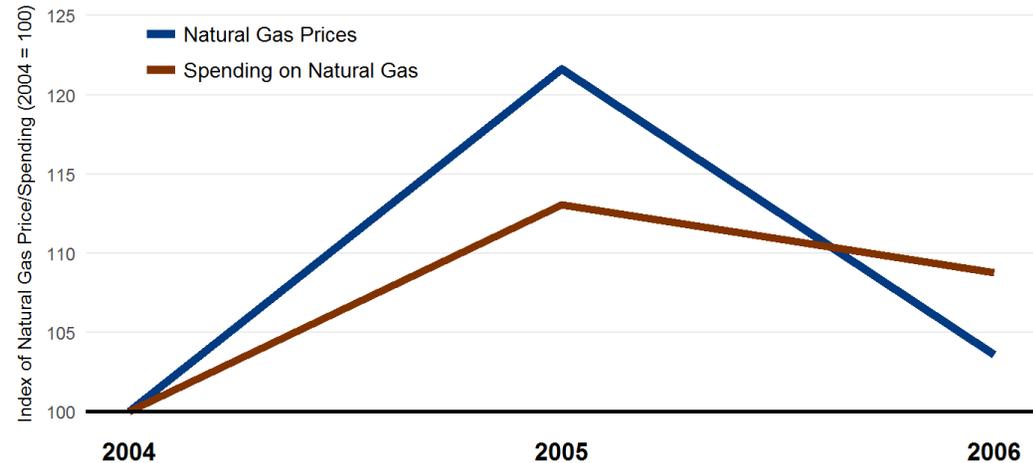
Natural gas prices in 2005 were 22 per cent higher than in 2004 — equivalent to a cost increase of over \$200 for the average household, or \$1.70 per GJ (equivalent to a \$35 per tonne carbon tax). These higher energy prices also boosted Alberta’s provincial surplus. The Government of Alberta used some of that surplus to pay out a “Prosperity Bonus” (nicknamed “Ralph Bucks” after then-premier Ralph Klein). Every person filing a tax return in Alberta received a cheque for \$400, which works out to approximately \$1,000 per household. These were announced in 2005 and paid in 2006.

Albertans spent their Prosperity Bonus on many items, not just energy. Spending on recreation notably increased.

On a percentage basis, household spending on natural gas rose less than the price between 2004 and 2005. This means households cut consumption of natural gas; that is, demand curves slope down: *higher prices lead to lower quantity demanded*. The reverse happened in 2006 when prices fell, and spending fell by less. In 2006, natural gas consumption was only marginally higher than 2004, suggesting Prosperity Bonuses were not used to purchase natural gas. Notably, average household spending on recreation increased \$800 in 2006 relative to 2005 — much more than in other provinces. This natural experiment is similar to the fee-and-rebate structure of the federal carbon pricing plan and suggests the incentive to lower emissions will remain.

Change in Natural Gas Prices and Average Spending in Alberta

Source: Own calculations from Statistics Canada’s Survey of Household Spending microdata, 2004 through 2006; Natural Gas prices are the 30-day AECO spot price plus one cent.



Change in Average Household Spending on Recreation, 2006 vs 2005

Source: Own calculations from Statistics Canada’s Survey of Household Spending microdata, 2005 and 2006.

