Carbon Capture and Storage could lower carbon emissions in NS by 20% in 4 years at the cost of $1.70/day/person

CCS and Fossil Fuel Use: Global Context
Carbon capture and storage (CCS) is widely recognized as the best technique for mitigating anthropogenic CO2 emissions if large scale fossil fuel use is to continue. According to many reports, including the 2005 IPCC report on CO2 Capture and Storage, in the coming century the percent of global primary energy derived from fossil fuels is predicted to be between 62-72% in 2050 and 42-57% by 2100, suggesting that continued large-scale use of fossil fuels is a certainty.

CCS and CO2 Emissions: Nova Scotia
The 2005 IPCC CCS report identified the Scotian Basin as highly prospective for geologic storage of CO2.

Since 2005 NS Power has reduced its annual CO2 emissions by ~37% of Petroleum Products (Petrol and Diesel) in Nova Scotia.

First Steps to a Carbon Neutral Nova Scotia: Scoping Analysis of Carbon Capture and Storage (CCS) Costs and Funding
Presented by Max Angel
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Summary
This presentation describes the costs and revenue associated with a CCS pilot project offshore Nova Scotia. This pilot project consists of two wells each injecting 1.25Mt/yr CO2 into the subsurface Mississauga Formation. Costs include capital expenditures ($2.2B with +$1B sensitivity) and annual operation expenditures ($40/tonne to $60/tonne CO2). Revenue is estimated using the sale of carbon credits ($50/tonne) and a surcharge applied to the sale of refined petroleum products ($0.05 to $0.20/L) in Nova Scotia. This project identifies commercial potential and regulatory framework for future CCS.

References