

Environmental protection expenditures by businesses, 2016

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Canadian businesses spent \$8.4 billion on environmental protection in 2016, down 29% from 2014. The decrease was largely the result of changes in environmental protection investments in the oil and gas extraction industry.

Despite the decline, the oil and gas extraction industry had the largest share of expenditures among the 16 industry groups surveyed, spending \$3.7 billion, or 44% of total business environmental protection expenditures.

This was followed by the primary metal manufacturing industry, which spent \$836 million, and the mining and quarrying industry, at \$810 million. Each of these sectors accounted for almost 10% of total expenditures. The electric power generation, transmission and distribution industry had the next largest share, spending \$583 million or 7% of the total in 2016.

Provincially, Alberta firms reported the highest spending on environmental protection at \$3.9 billion, largely due to the role of oil and gas extraction activities in the province.

Of the \$8.4 billion in total environmental protection spending, operating expenses accounted for almost two-thirds of the total at \$5.2 billion, down 16% from 2014. Capital expenses totalled \$3.2 billion, down 42% from 2014.

Pollution abatement and control processes and waste management and sewage services accounted for more than half of total expenditures.

Capital expenditures

Capital spending on environmental protection projects in the oil and gas extraction industry totalled \$1.7 billion, down 55% from 2014. This amounted to slightly more than half of total capital expenditures.

Investment in pollution abatement and control accounted for 29% of total capital investment, followed by investment in waste management and sewage services (24%). Capital expenditures for pollution prevention decreased by 17% compared with 2014.

Operating expenditures

The majority of the operating expenditures went to pollution abatement and control (end-of-pipe process) in 2016. Businesses spent \$1.6 billion on these processes, or about one-third of total operating expenditures on environmental protection.

The oil and gas extraction industry reported the highest environmental protection operating expenditures at \$2.0 billion, or 38% of the total.

Pollution prevention methods

In 2016, 61% of businesses in Canada reported that they used at least one pollution prevention method, up from 47% in 2014. The top three most commonly used methods were: recirculation, on-site recycling or reuse or recovery of materials or substances; good operating practices or pollution prevention training; and prevention of leaks and spills.

Environmental protection expenditures on pollution prevention decreased from \$1.5 billion in 2014 to \$1.3 billion in 2016.



Environmental management practices

In 2016, 51% of businesses used at least one environmental management practice. Those practices are protocols that businesses adopt to reduce their impact on the environment. The most commonly reported practice in 2016 was the implementation of an environmental management system, followed by the performance of energy audits in the last three years.

Note to readers

This release presents data from the 2016 Survey of Environmental Protection Expenditures, a biennial survey of just over 3,500 establishments in selected primary industries and in the manufacturing sector.

Measures of industrial spending on environmental protection are restricted to spending made in response to current or anticipated regulations, conventions, or voluntary agreements. Measures of spending on renewable energy technologies include all such expenditures, regardless of whether they were made in response to regulations or for another reason.

Pollution abatement and control (end-of-pipe processes): *Pollution abatement and control (end-of-pipe processes) can be described as equipment and processes that treat pollution and waste after they have been created. Examples of these types of equipment or processes include scrubbers at the end of emission stacks, biological and chemical systems for treating water (such as a water treatment plant), filtration systems, cyclones or other barrier systems.*

Pollution prevention: *Pollution prevention involves the use of technologies, equipment or processes that reduce or eliminate pollution and/or waste at the source—rather than at the end-of-pipe or stack—before the pollution or waste is created. Examples include implementing more efficient processes that consume less energy or inputs, restructuring or redesigning the production process to reduce pollution or emissions, or reusing, recirculating or recycling materials on site (does not include materials sent off-site for recycling).*

Available tables: [38-10-0004-01](#), [38-10-0005-01](#), [38-10-0008-01](#), [38-10-0042-01](#) to [38-10-0046-01](#) and [38-10-0120-01](#).

Definitions, data sources and methods: survey number [1903](#).

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; STATCAN.infostats-infostats.STATCAN@canada.ca) or Media Relations (613-951-4636; STATCAN.mediahotline-ligneinfomedias.STATCAN@canada.ca).