

Sales of environmental and clean technology goods and services, 2015

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Canadian businesses sold over \$3.4 billion worth of environmental and clean technology goods manufactured in Canada in 2015, while sales of related services accounted for almost \$3.8 billion. If waste management services are included, the total revenues of environmental and clean technology services rise to \$11.1 billion.

These revenues represent a partial picture of activity in Canada's Clean Technology sector.

Environmental and clean technology goods

Canada's efforts to transition to a low-carbon economy were reflected in strong sales of equipment for renewable energy technologies, supplying (for example) wind, solar, and hydro power generation projects. Companies reported \$1.3 billion in revenues in this sector, accounting for 38% of total sales of environmental and clean technology goods.

Companies also profited from Canada's commitment to providing reliable waste management services in its continued bid to protect the environment. Sales of non-hazardous waste management equipment (\$616 million) and industrial wastewater and municipal sewage treatment technologies (\$526 million) amounted to one-third of the total value of goods sold in Canada's clean technology sector in 2015.

The sale of equipment and technology necessary to respond to spills or legacy environmental clean-up projects totalled \$361 million.

Canada's manufacturers capitalized on changing and emerging markets, with sales for smart grid and energy storage technologies totalling \$328 million. In turn, sales related to the monitoring and reduction of greenhouse gas emissions and air pollution totalled \$76 million. Included in the latter category is equipment required for carbon sequestration and clean coal technologies, as companies switch to new methods to manage the carbon output resulting from their production activities. Businesses selling products supporting the manufacture of bioenergy and biomaterials reported sales of \$51 million in 2015.

Environmental and clean technology services

Site remediation and emergency environmental services generated almost \$1.5 billion in revenue in 2015, while environmental consulting firms providing services such as environmental assessments and audits took in just over \$1.9 billion.

Companies supplying energy-efficiency services, such as green building certification and energy efficiency consulting services, generated \$280 million in sales in 2015.

The largest category of service revenues is from the provision of waste management services. Private sector waste management service providers reported revenues of almost \$7.3 billion, based on data from the Waste Management Industry Survey. Waste management services include activities such as collection of waste, recyclables and organics, and the operation of landfills, transfer facilities, and recycling and organic processing facilities.

Exports and employment in the environmental and clean technology sector

Canadian businesses exported \$1.2 billion worth of environmental and clean technology goods and services in 2015, with more than 80% going to the United States. The remainder was distributed among other international markets.

In 2015, environmental and clean technology jobs provided employment for about 23,000 Canadians. The waste management industry employed just over 38,000 people in full and part-time positions in 2015.

Note to readers

Clean technology

With the exception of Waste Management and Environmental Consulting services, these data are derived from the Survey of Environmental Goods and Services. Waste management services revenue and employment data are based on the Waste Management Industry Survey. Revenues from environmental consulting services are based on the 2015 Annual Survey of Service Industries: Consulting Services.

As part of the federal government's initiative to develop its Clean Technology Data Strategy, Statistics Canada expanded the Survey of Environmental Goods and Services in 2015 to incorporate a partial suite of clean technology goods and services. Further expansion in this area will take place in future survey cycles.

Clean technologies are defined as follows:

- *Any good or service designed with the primary purpose of contributing to remediating or preventing any type of environmental damage;*
- *Any good or service that is less polluting or more resource-efficient than equivalent normal products which furnish a similar utility. Their primary use, however, is not one of environmental protection.*

The survey captures revenues from several areas of Canada's growing clean technology sector. A comprehensive measurement of clean technology sales in Canada's economy is available through Statistics Canada's Clean Technology Satellite Account, of which the Survey of Environmental Goods and Services is one of several components. The Clean Technology Satellite Account captures all economy-wide transactions in the clean technology sector, such as clean energy and scrap metals, while the Survey of Environmental Goods and Services produces data on a clearly specified subset of goods and services that are narrower in scope than those captured in the Clean Technology Satellite Account.

Changes to the survey methodology were made for the estimates of environmental goods. For this reason, comparison of the 2015 estimates to earlier estimates of the Survey of Environmental Goods and Services should be made with caution. This is particularly the case with the category-specific estimates.

Table 1
Revenues from sales of environmental and clean technology goods manufactured in Canada, by type of good, 2015¹

	thousands of dollars
Total	3,455,043^C
Renewable energy production	1,298,970 ^D
Non-hazardous waste management	616,094 ^E
Industrial air pollution or flue gas management	197,098 ^C
Monitoring and reduction of greenhouse gas emissions and air pollution	76,037 ^E
Industrial wastewater and municipal sewage treatment	526,165 ^C
Remediation of ground and surface water, leachate, soil, sediment and sludge	361,263 ^E
Smart grid and energy storage	328,153 ^E
Bioenergy and biomaterial production	51,263 ^E

- A excellent (0.00% to 4.99%)
 B very good (5.00% to 9.99%)
 C good (10.00% to 14.99%)
 D acceptable (15.00% to 24.99%)
 E use with caution

1. Includes revenues for the production of technologies related to these activities.

Note(s): Figures may not add up to total due to rounding. Estimates contained in this table have been assigned a letter value to indicate the quality of the estimate, as measured by the coefficient of variation (expressed as a percentage).

Source(s): Survey of Environmental Goods and Services ([1209](#)).

Table 2
Revenues from sales of environmental and clean technology services, by type of service, 2015

	thousands of dollars
Total	11,093,926
Site remediation and emergency environmental services ^{1,2}	1,498,999 ^D
Energy efficiency services (domestic sales)	279,553 ^E
Monitoring and reduction of greenhouse gas emissions and air pollution (domestic sales)	74,842 ^E
Environmental consulting ³	1,923,900 ^A
Waste management services ⁴	7,316,632

- A excellent (0.00% to 4.99%)
 B very good (5.00% to 9.99%)
 C good (10.00% to 14.99%)
 D acceptable (15.00% to 24.99%)
 E use with caution

1. Includes revenues for the following services, including goods sold as part of the service: in situ and ex situ remediation of soil, sediment, and sludge; in situ and ex situ remediation of groundwater, surface water and leachate; remediation of air or off-gas; control, containment and monitoring services (air, water, soil); and environmental emergency response services. Source: Statistics Canada, Environment, Energy and Transportation Statistics Division.

2. Includes revenues for exported services.

3. Includes revenues for the following services: environmental assessments; environmental audits; site remediation planning services; natural resource management consulting services; waste management consulting services; environmental policy development consulting services; and other environmental consulting services. Source: Annual Survey of Service Industries: Consulting Services, 2015.

4. Includes the following waste management services: collection of waste, recyclables and organics; operation of landfills, transfer facilities and recycling and organic facilities; operation of incinerators and processing facilities; operation of hazardous waste facilities; sewage treatment/containment; sale of recovered materials. Source: Waste Management Industry Survey, 2015.

Note(s): Figures may not add up to total due to rounding. Estimates contained in this table have been assigned a letter value to indicate the quality of the estimate, as measured by the coefficient of variation (expressed as a percentage).

Source(s): Survey of Environmental Goods and Services ([1209](#)).

Definitions, data sources and methods: survey number [1209](#).

The publication *Clean technologies and the Survey of Environmental Goods and Services: A technical reference guide, 2012 and 2015* ([16-511-X](#)) is now available online.

For more information, to request data tables, 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).