



## **Residential Recovery of Paper Packaging For Recycling estimated at 65%**

This PPEC study estimated used corrugated and boxboard material **actually sent for recycling** by householders. Simply having **access** to a Blue Box-type system was not considered good enough since this doesn't mean a material actually gets sent for recycling, it just means *it could* be sent for recycling.

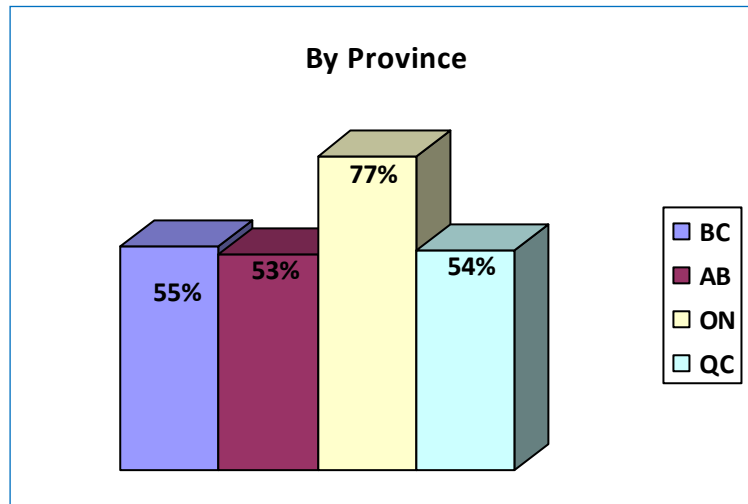
And the focus was specifically on residential recycling as opposed to industrial recycling (where old corrugated containers or OCC, for example, is believed to have a recovery rate for recycling approaching 85 per cent).

PPEC was able to break out data for the major paper packaging grades of corrugated and boxboard, but further specification (such as for aseptic cartons, gabletops and paper laminates) was not possible. The numbers used are based on the best data available and/or statistical extrapolations from other data. Because of the lack of specific data at the provincial level, the study's conclusions relate to four provinces only. However, these four provinces represented 86% of Canada's population in 2009.

### **Summary**

- **Residential recovery of paper packaging for recycling is estimated to be 65%.**
- **Residential recovery of corrugated for recycling estimated at 75%.**
- **Residential recovery of boxboard for recycling estimated at 52%.**

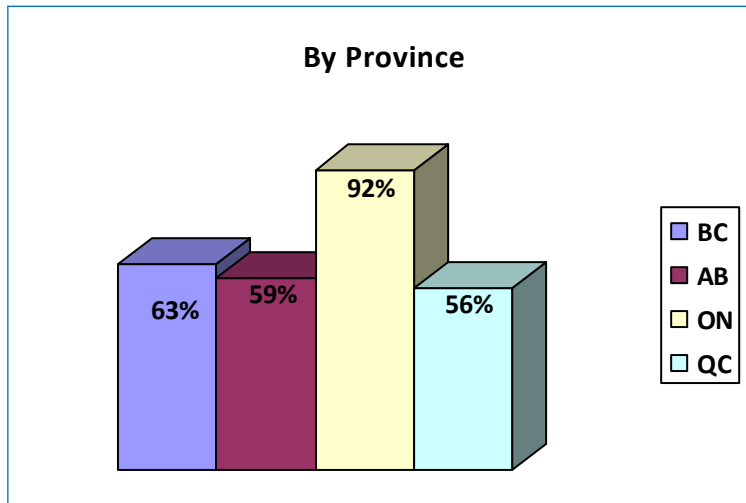
## Residential Paper Packaging Recovered for Recycling 65%



### Est. Residential Generation/Recovery of Paper Packaging for Recycling (2009)

Province	Est. Pop (09)	Est. Tonnes Used	Access %	Est. Tonnes Recycled	Recovery %	
BC	4,460,300	102,649	69%	56,903	55.4%	
Alberta	3,670,700	84,477	66%	44,642	52.8%	
Ontario	13,064,900	300,675	98%	230,249	76.6%	
Quebec	7,828,400	154,202	85%	83,581	54.2%	
		86%	642,003		415,375	64.7%

## Residential Recovery of Corrugated for Recycling estimated at 75%

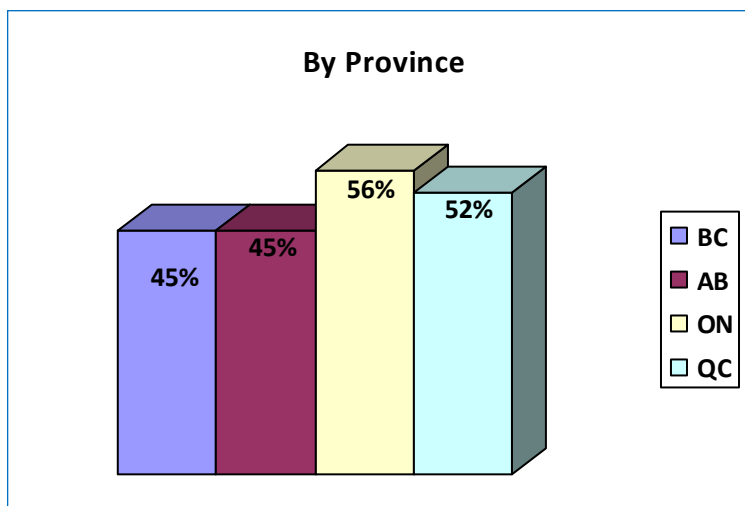


Province	Est. Pop. (09)	Est. Tonnes Used	Est. Tonnes Recycled	Recovery %
BC	4,460,300	59,198	37,350	63%
Alberta	3,670,700	48,718	28,550	59%
Ontario	13,064,900	173,400	159,077	92%
Quebec	7,828,400	82,285	46,340	56%
	86%	363,601	271,317	75%

### Notes:

- Generation Assumptions:** An Ontario residential generation rate is applied on a per capita basis to Alberta and British Columbia, assuming that the consumption pattern for residential corrugated boxes is not markedly different there. For example, Ontario Blue Box data (Stewardship Ontario/Waste Diversion Ontario) indicates that some 173,400 tonnes of corrugated was generated by Ontario households in 2009. Divided among Ontario's 13 million residents in 2009 (Stats Can population estimates online, July 1, 2010) this yields a per capita generation rate of 0.0132722 per tonne per person. This rate is then applied to Stats Can's estimated populations of Alberta and BC to give a total estimated residential tonnage consumption number. For Quebec, we have used the data supplied by steward organization, Éco Entreprises Québec.
- Recovery Assumptions:** For Ontario, the SO/WDO Blue Box recovery numbers for 2009 are used. For Alberta, a midpoint residential recovery tonnage has been estimated between 24,500 tonnes and 32,600 tonnes based on Calgary per capita recovery data, and assumptions on extrapolating that to the rest of the province. For BC, a midpoint residential recovery tonnage has been estimated between 34,100 tonnes and 40,600 tonnes based on Victoria per capita recovery data, and assumptions on extrapolating that to the rest of the province. For Quebec, the residential corrugated tonnage recovery number is that estimated by EEQ.
- These four provinces represented an estimated 86% of Canada's population in 2009 (Stats Canada). The recovery rate for their residential corrugated combined is estimated at 75%.

## Residential Recovery of Boxboard for Recycling estimated at 52%



Province	Est. Pop. (09)	Est. Tonnes Used	Est. Tonnes Recycled	Recovery %
BC	4,460,300	43,451	19,553	45%
Alberta	3,670,700	35,759	16,092	45%
Ontario	13,064,900	127,275	71,172	56%
Quebec	7,828,400	71,917	37,241	52%
	86%	278,402	144,058	52%

### Notes:

- Generation Assumptions:** An Ontario residential generation rate is applied on a per capita basis to Alberta and British Columbia, assuming that the consumption pattern for residential boxboard cartons is not markedly different there. For example, Ontario Blue Box data (Stewardship Ontario/Waste Diversion Ontario) indicates that some 127,275 tonnes of boxboard was generated by Ontario households in 2009. Divided among Ontario's 13 million residents in 2009 (Stats Can population estimates online, July 1, 2010) this yields a per capita generation rate of 0.0097417 per tonne per person. This rate is then applied to Stats Can's estimated populations of Alberta and BC to give a total estimated residential tonnage consumption number. For Quebec, we have used the data supplied by steward organization, Éco Entreprises Québec.
- Recovery Assumptions:** For Ontario, the SO/WDO Blue Box recovery numbers for 2009 are used and for Quebec, those estimated by EEQ. A recovery rate of about 45% is considered reasonable for both Alberta and BC. This is partially based on estimates from Calgary pro-rated to the province but reduced in recognition that many municipalities collect in depots (lower capture).
- The four provinces represented an estimated 86% of Canada's population in 2009 (Stats Canada). The recovery rate for residential recycling of old boxboard (excluding composting) across these four provinces is estimated at 52%.