

1.0 Context, Assumptions and Study Objectives

The European Commission’s Circular Economy Package and Plastic Strategy has driven increases in recycling targets for packaging under the Packaging and Packaging Waste Directive 2018/852 (PPWD), as well specific requirements for PET bottles under the Single Use Plastic Directive (90% collected by 2029). France is exploring ways of reaching these targets, one of which is a deposit return system (DRS) on beverage containers. This report calculates the additional tonnage that France will be able to collect through a DRS by 2029 and compares the cost of this program to door-to-door household packaging collection alone.

2.0 Results

2.1 Impact on Recycling Tonnage

In 2029, the total tonnes of packaging¹ placed on the market attributed to the residential sector will increase to 5.4 million tonnes, of which 3.7 million tonnes (69%) was calculated as likely to be recycled.² With a DRS, the tonnes of packaging recycled from households increases by 366,000 tonnes, to approximately 4.1 million tonnes and a recycling rate of 76%.³

2.2 Impact on Door-to-Door Household Packaging and Residual Waste Collections Costs

Table 2-1 is an overview of the total costs of recycling with and without DRS as well as the reduction and percent change from the status quo when DRS is implemented.

Table 2-1: Cost Comparison for Door-to-Door Residual Waste and Household Packaging Collection in Current and Future Scenarios⁴

		Residual Waste Collection	Household Packaging Collection	Total
Current Total Cost		€ 1,586,364,000	€ 451,290,000	€ 2,037,654,000
With DRS	Total Cost	€ 1,564,245,000	€ 414,240,000	€ 1,978,485,000
	Reduction	€ -22,118,000	€ -37,051,000	€ -59,169,041,000
	Total Change	-1.4%	-8.2%	-2.9%

Source: ADEME. "REFERENTIEL NATIONAL DES COUTS DU SERVICE PUBLIC DE PREVENTION ET DE GESTION DES DECHETS: ANNEE 2016." July 2019, Economic Research Institute and Eunomia calculations.

2.3 Net Benefits

There are other impacts of implementing a DRS in addition to system costs. There will be a loss of material value in the kerbside system (€65 million), but there will also be municipal savings from a reduction in material going to landfill or incineration (€33 million). Figure 3-1 provides an overview of the gains and losses across the system of implementing a DRS, including a 1.4% decrease in disposal costs. Savings from litter clean up costs (€20 million) and collection savings (€22 million for residual and €37 million for recycling) lead to a net benefit of approximately €48 million. Figure 3-2 provides a breakdown of material within each disposal stream before and after DRS, highlighting the large percentage of plastic captured through the DRS. There are additional benefits from a DRS related to the projected 22,000 tonne reduction in litter, which impacts a person’s well-being and ability to enjoy their environment. The study calculated the monetized impact of the reduction in litter to be €0.94 per person per week, or €4 billion across France.

Figure 2-2: Net Benefits of Implementing a DRS

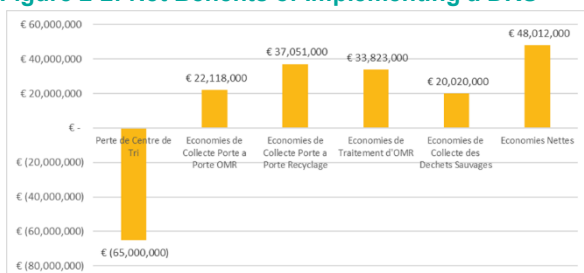
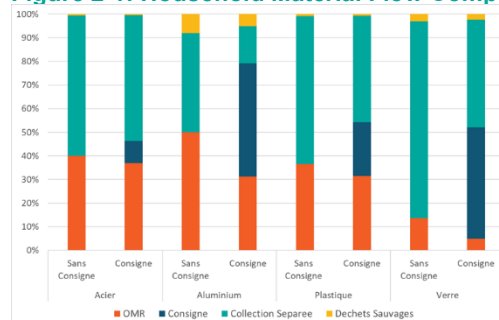


Figure 2-1: Household Material Flow Composition (%)



3.0 Conclusion

In terms of collection costs, adding a DRS reduces total costs for residual waste and household packaging collection by 2.9%, or savings of about €59 million, with a total system net benefit of

¹ Packaging is defined by ADEME as: “all the material elements which, without being part of the product itself, are sold with it in order to allow or facilitate its protection, transport, storage, presentation, packaging, identification and its use by consumers.” < <https://eco-communication.ademe.fr/marketing-et-publicite-responsables/marketing-responsable-packaging/packaging-definition-et->

² Recycling rate is calculated in accordance with ADEME methodology (ADEME. “Tableau de bord des déchets d’emballages ménagers.” November 2018).

³ Of the percent recycled, 38% will go through glass community recycling banks, rather than through door-to-door collection.

⁴ Costs relate to the proportion of packaging in the door-to-door recycling collection stream.

approximately €48 million, while increasing the tonnage recycled from households by 9%, 366,000 tonnes (Glass: 252,000; Plastic: 81,000; Aluminium: 17,000; Steel: 10,000; Board: 7,000).