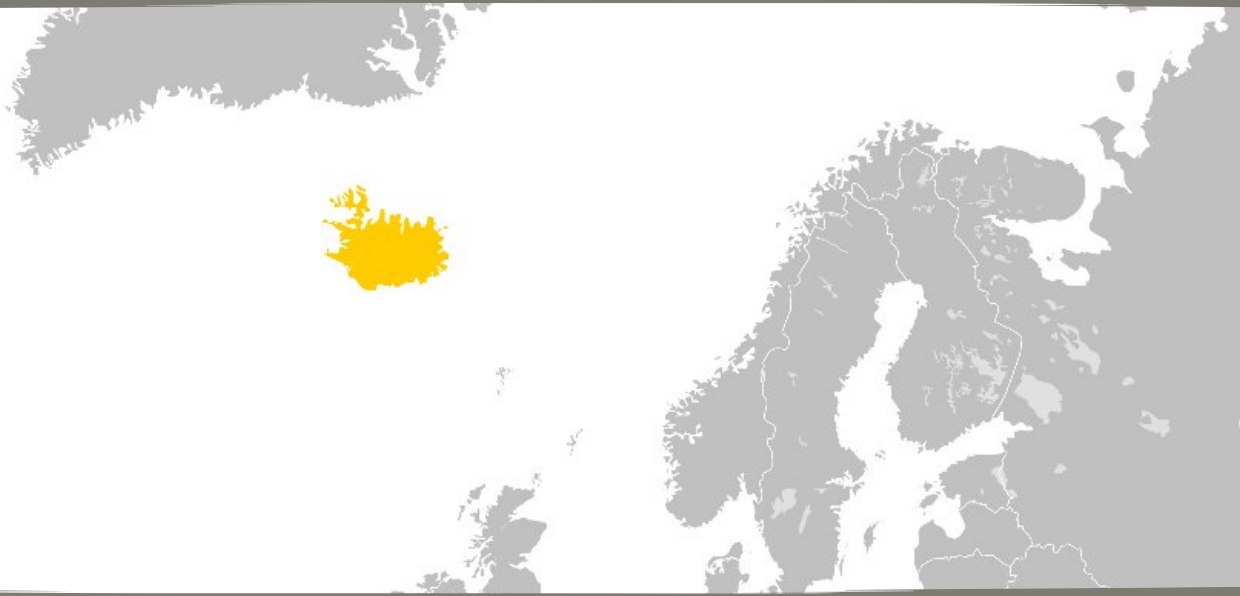




ACR+

www.acrplus.org

DEPOSIT-REFUND SYSTEMS FOR ONE-WAY BEVERAGE PACKAGING IN EUROPE



THE CASE OF ICELAND

JANUARY 2019



DESCRIPTION OF THE SYSTEM

BACKGROUND FOR INTRODUCING THE SYSTEM

A deposit system on non-refillable metal, plastic and glass packaging has been in place in Iceland since 1989, thus making it the first country to set up a deposit system on a national scale for such a wide range of beverage containers¹. The reasons for the establishment of the system were protection of nature and the environment as well as increase in packaging recycling². To prevent littering it was decided that the DRS system would accept crushed material, as is still the case, to prevent that those units would be left in the nature.

LEGAL BASIS, SCOPE AND TARGETS. LINKS TO OTHER POLICIES OR INSTRUMENTS

The Law³ and the Regulation⁴ on disposable packaging for beverages serve as a basis to the DRS system in Iceland. They stipulate that all beverages in disposable containers made of metal, glass and plastic are subject to a fixed deposit. The deposit is set at 16 ISK [0.13 EUR] on each packaging unit and can be increased in accordance with the changes in the consumer price index. An additional deposit (handling fee) is levied on every packaging unit of metal, glass and plastic according to the material. Importers and domestic producers pay the deposit to the customs/ tax authority respectively, which pass the money to the deposit operator. The DRS operator is established as a limited liability company run jointly by the industry and the government. Its tasks are to take care of the deposits and ensure the establishment and maintenance of an effective collection of deposit-bearing packaging throughout the country, as well as its recycling.

The DRS covers all ready-to-drink beverages, wine and liquor. An exception is made for packaging of milk, milk-containing products and juice extract⁵. The government is currently pushing to remove the exceptions and to add also milk products and juice extracts to the system.

1 Endurvinnslan – Deposit system [[website](#)]

2 Endurvinnslan – Um okkur (About us) [[website](#)]

3 Law 52/1989 – Lög um ráðstafanir gegn umhverfismengun af völdum einnota umbúða fyrir drykkjarvörur (Legislation regarding environmental pollution caused by disposable packaging for beverages) [[website](#)]

4 Regulation 368/2000 - Reglugerð um söfnun, endurvinnslu og skilgjald á einnota umbúðir fyrir drykkjarvörur (Regulation on collection, recycling and delivery of disposable packaging for beverages) [[website](#)]

5 Endurvinnslan – Deposit system [[website](#)]

The target for return rates is set with the Environment ministry at 90% for aluminium cans and PET bottles and 85% for glass bottles. It is calculated as only from the DRS system.

The Law on recycling fees⁶ aims to create economic conditions for the reuse and recycling of waste, lower the volume of waste going to final disposal and ensure the proper disposal of hazardous substances. Following the “polluter-pays” principle, recycling fees are to be imposed on certain products incl. packaging, to cover the costs of waste collection, transport and treatment. Products are divided in a set of categories and the respective revenues should be used exclusively to cover the expenses for that category. The Icelandic Recycling Fund (IRF) – is a state-owned agency under the Ministry of Environment. It administers the recycling fees and organises an efficient management system for those products covered by the law, through tenders and contracts as appropriate.

According to the Waste Management Law⁷, the local authorities are responsible for the collection system for household waste and for communicating to the citizens. The operational aspects are usually outsourced to private waste management companies. There is no rule as to how packaging waste should be collected – this is decided by the local authorities and can be influenced by proposals of the private actors submitting a tender for the collection and management of recyclable waste fractions. There are three prevailing collection methods: kerbside, neighbourhood bring banks and central recycling stations with regular opening hours. The collection and treatment of packaging from households is partly financed by the municipality (through a share of the total waste fees from households, which should be adjusted to the actual total waste management costs) and partly by the packaging recycling fees collected by the IRF⁸.

SYSTEM FUNCTIONING, ROLES AND RESPONSIBILITIES OF MAIN STAKEHOLDERS

Deposit operator



The DRS system in Iceland is operated by Endurvinnslan. The company is responsible for managing the collection of all disposable drinking containers, paying back the deposit to the consumer, preparing collected packaging for export and selling it for recycling.

Endurvinnslan is owned by:

- The state (Ministry of Finance and Economic Affairs)
- The State alcohol and tobacco company of Iceland (Vínbúðin)
- The Icelandic association of Local Authorities (Samband íslenskra sveitarfélaga)
- Two metal treatment companies (Alkan and Elkem)
- Icelandic scout association (Bandalag íslenskra skáta)
- Icelandic association of merchants (Kaupmannasamtök Íslands)

6 Law 162/2002 – Lög um úrvinnslugjald (Law on recycling fee) [[website](#)]

7 Law 55/2003 – Lög um meðhöndlun úrgangs (Waste Management Law) [[website](#)]

8 Fråne A., Stenmarck Å., et. al. – Collection & recycling of plastic waste. Improvements in existing collection and recycling systems in the Nordic countries". Nordic Council of Ministers 2014 [[report](#)]

- Two Icelandic drink companies (Ölgerðin and Coca-Cola)⁹

Endurvinnslan operates 60 return facilities all over Iceland where consumers can return their empty beverage packaging and get their deposit paid back. The deposit value is the same for all bottles and cans. It is set at 16 ISK [0.13 EUR]¹⁰. However, the different materials (metal, glass, and plastic) have their own financing and no cross-financing between them is allowed.

Once the one-way containers have been collected together and passed through preliminary processing by Endurvinnslan, they are sent for recycling and recovery.

Endurvinnslan finances its operations through the deposit fees collected by the State treasury from importers and domestic producers, as well as through revenues from sales of exported waste and unredeemed deposits¹¹. The total cost of the system is approximately 4.8 ISK [0.04 EUR] per packaging unit.

Producers

Producers and importers of drink containers defined by legislation pay a fixed deposit per unit put on the market. The importers pay a deposit at custom clearance and domestic producers pay to the tax authority together with excise duties. Additionally deposit is applied on every unit of packaging of steel, glass and plastic materials. No deposit is collected for the exported beverages¹².

Table 1: Deposit fees (amount excl. VAT)

	Metal	Glass		Plastic	
General deposit		> 500 ml	<= 500 ml	Coloured	Uncoloured
16 ISK	4.5 ISK	5.3 ISK	3.9 ISK	3.2 ISK	1.3 ISK
[0.13 EUR]	[0.04 EUR]	[0.04 EUR]	[0.03 EUR]	[0.03 EUR]	[0.01 EUR]

Retailers

Retailers buy packaged beverages from importers and manufacturers with deposit fee already included in the price. They do not have any obligations in terms of collection or refunding of the deposit, since these tasks are performed by Endurvinnslan.

Consumers

Consumers can return empty deposit-bearing beverage containers and claim their deposit back at 60 reception centres operated by Endurvinnslan all over Iceland. Since 2008, Endurvinnslan started using RVMs to classify and count drinks packaging by barcodes thus saving time. Currently there are 7 such automated locations and it is planned are to expand this technology to other centres in the coming years. The remaining majority of reception centres are not equipped with RVMs so the delivered containers need to be counted and sorted manually into the different categories upon delivery¹³.

9 Endurvinnslan – Eigetur (Ownership) [[website](#)]

10 Endurvinnslan – Deposit system [[website](#)]

11 Fråne A., Stenmarck Å., et. al. – Collection & recycling of plastic waste. Improvements in existing collection and recycling systems in the Nordic countries". Nordic Council of Ministers 2014 [[report](#)]

12 Regulation 368/2000 - Reglugerð um söfnun, endurvinnslu og skilgald á einnota umbúðir fyrir drykkjarvörur (Regulation on collection, recycling and delivery of disposable packaging for beverages) [[website](#)]

Another options for return is through NGOs, sport clubs, scout associations or voluntary rescue teams which collect beverage containers as a “donation” to finance their activities or raise money for specific projects. Such organisations have either set up their own collection containers at different locations (close to petrol stations, tourist destinations or in front of their offices) or their representatives go from house-to-house. Once they have collected certain number of containers, they will themselves deliver them to a reception centre and keep the deposit for themselves¹⁴. The scouts have approximately 200 kerbside containers where consumers can donate to the scouts the deposit fee.

Supervision

The Ministry of Environment and Natural Resources supervises the DRS. Endurvinnslan is obliged to regularly send reports on the operation of the system, including the number of returned packaging by type ¹⁵.

13 Endurvinnslan – Talningav (Reception centres) [[website](#)]

14 Fråne A., Stenmarck Å., et. al. – Collection & recycling of plastic waste. Improvements in existing collection and recycling systems in the Nordic countries". Nordic Council of Ministers 2014 [[report](#)]

15 Regulation 368/2000 - Reglugerð um söfnun, endurvinnslu og skilagjald á einnota umbúðir fyrir drykkjarvörur (Regulation on collection, recycling and delivery of disposable packaging for beverages) [[website](#)]

RESULTS

The recycling rate for drink containers in Iceland has historically been approximately 85%. The recycling rate per product is: 90% for aluminium, 87% for PET bottles and 83% for glass. In 2011-2012 the rate increased to 87% followed by an increase to 90% in 2014. In the last few years the rate has been dropping– this has been attributed to the number of tourists who are unfamiliar to the system¹⁶.

All plastic and metal containers are sent abroad for recycling (exported mainly to the Netherlands). Glass packaging is shredded and used in Iceland. The collected materials are mainly exported and recycled outside of Iceland since the limited number of inhabitants makes it economically unattractive to invest in recycling facilities such as paper mills, glass works or plastic factories. There are 3 aluminium factories situated on the island but no deposit-subject cans are recycled in Iceland. The glass bottles are neither exported for recycling neither recycled in Iceland. A report commissioned by Endurvinnslan and the IRF in 2014 concluded that it is important from an environmental perspective to collect, export, sort and recycle glass from Iceland. However, according to Endurvinnslan, the environmental benefit of exporting glass for recycling abroad is mostly outweighed by the CO₂ emissions of the transport and the related costs. In order to be profitable, glass factory on the island should have the capacity to produce more than ten times the amount of glass available in Iceland. Therefore, the collected glass is used primarily in landfill stabilisation to replace gravel (by Sorpa – the waste management company for six municipalities of the Reykjavik region) and in road construction¹⁷. Because of these reasons, Endurvinnslan generally is not in favour of glass beverage packaging¹⁸. Nevertheless, it is exploring options to try to recycle glass.

The value of exports in 2017 reached 215 million ISK [1.74 million EUR]. In terms of material quantities, Endurvinnslan sells about 750 tonnes of aluminium and 1,800 tonnes of plastic per year.

Littering has been a main motivation behind the introduction of the DRS. According to Endurvinnslan, the system has indeed been successful in reducing litter which is today much less common than it used to be back in 1989 and is composed of materials which are not subject to the beverage DRS¹⁹.

¹⁶ Endurvinnslan – Recycling rate [website]

¹⁷ Endurvinnslan – Um okkur (About us) [website], Gler (Glass) [website]

¹⁸ Mbl.is – Glass a hard product for Endurvinnslan [website]

¹⁹ Mbl.is – Glass a hard product for Endurvinnslan [website]

REFERENCES

- Endurvinnslan – Deposit system [<http://www.endurvinnslan.is/english/>]. Accessed in November 2018
- Endurvinnslan – Eigetur (Ownership) [<http://www.endurvinnslan.is/eigendur/>]. Accessed in November 2018
- Endurvinnslan – Gler (Glass) [<http://www.endurvinnslan.is/gler/>]. Accessed in November 2018
- Endurvinnslan – Recycling rate [<http://www.endurvinnslan.is/english/>]. Accessed in November 2018
- Endurvinnslan – Talningav (Reception centres) [<http://www.endurvinnslan.is/talningav/>]. Accessed in November 2018
- Endurvinnslan – Um okkur (About us) [<http://www.endurvinnslan.is/um-okkur/>]. Accessed in November 2018
- Fråne A., Stenmarck Å., et. al. – Collection & recycling of plastic waste. Improvements in existing collection and recycling systems in the Nordic countries". Nordic Council of Ministers 2014 [http://kunststofkringloop.nl/wp-content/uploads/2014/06/Plastic_Study_Report.pdf]
- Law 52/1989 – Lög um ráðstafanir gegn umhverfismengun af völdum einnota umbúða fyrir drykkjarvörur (Legislation regarding environmental pollution caused by disposable packaging of beverages) [<https://www.althingi.is/lagas/nuna/1989052.html>]
- Law 55/2003 – Lög um meðhöndlun úrgangs (Waste Management Law) [<https://www.althingi.is/lagas/148c/2003055.html>]
- Law 162/2002 – Lög um úrvinnslugjald (Law on recycling fee) [<https://www.althingi.is/lagas/148c/2002162.html>]
- Mbl.is – Glass a hard product for Endurvinnslan [https://www.mbl.is/frettir/innlent/2017/09/26/glerid_erfid_vara_fyrir_endurvinnsluna/]
- Regulation 368/2000 - Reglugerð um söfnun, endurvinnslu og skilagjald á einnota umbúðir fyrir drykkjarvörur (Regulation on collection, recycling and delivery of disposable packaging for beverages) [<https://www.reglugerd.is/reglugerdir/eftir-raduneytum/umhverfis--og-audlindaraduneyti/nr/4400>]

Disclaimer

This country report is based on publicly available information gathered by ACR+ team and validated by Endurvinnslan.

Deposit-refund systems for one-way beverage packaging in Europe

This country report is part of a wider study of ten deposit-refund systems in Europe covering the following countries: Croatia; Denmark; Estonia; Finland; Germany; Iceland; Lithuania; the Netherlands; Norway and Sweden.

The full report is available for ACR+ members on www.acrplus.org.
