

Recycling & return premium for refrigerators and freezers

Elaboration of measure 43 of Urgenda's 40-point plan for a 25% CO₂ reduction in 2020

The failure of the collection structure

For many years, the Netherlands has had an extensive structure for collecting waste electrical and electronic equipment (WEEE). The Dutch collection structure comprises hundreds of drop-off facilities run by local authorities, retailers and recycling companies. It is also standard practice, especially in the case of large equipment, for retailers to take old appliances to these facilities when new ones are sold. Despite this extensive collection structure, the targets are not being met.

It appears that consumers are not handing enough WEEE over to the system. A considerable proportion of large appliances is disappearing into the metal trade, where it is illegally processed as 'scrap metal'. In 2018, 49% of scrapped appliances were collected, which means we were still a long way from meeting the 65% target for 2019. The Dutch Human Environment and Transport Inspectorate's enforcement actions, in the form of a chain-wide action plan including financial arrangements with the metal industry, have not yet led to enough improvement in the collection and processing of WEEE. The proposal will allow the system put forward here to enter into force if these measures fail to have a short-term impact on the collection of old appliances.

A small, hidden climate disaster

Currently, only 44% of large white goods are processed correctly. Only 64% of all fridges and freezers are collected and processed the right way. This means that each year approximately 360,000 refrigerators and freezers are not processed as they should be. We can therefore reasonably assume that each year in the Netherlands, 120,000 devices/appliances containing CFCs or HFCs disappear into mixed metal streams and end up in metal shredders, which means these harmful greenhouse gases are simply into the atmosphere. This is equivalent to approximately 274 Kt of CO₂ emissions per year. These emissions are equal to 1% of annual traffic emissions (approx. 100,000 passenger cars) or 0.14% of all emissions in the Netherlands. That is a lot of greenhouse gas.

A circular economy cannot exist without a closed cycle. Old appliances that are not collected can neither be recycled nor reused. Under the current system we are therefore losing a lot of raw materials and emitting unnecessarily large volumes of CO₂. The optimal circular system would mean 100% of products being collected, allowing us to assess correctly whether to reuse or recycle them. However, at the moment the manufacturer has too little influence on the consumer's disposal process. The existing system is actually holding back any further development. This needs to change.

Changing the Collection System

At the heart of the newly proposed system lies a powerful financial incentive to persuade more consumers to trade in their old appliances. It is also important to set up a highly transparent and visible recycling fee system that provides insight into the costs and operation of the return logistics chain. The explicit principle of the set-up is for circular change to be accommodated without a fresh layer of cost-based competition being created among manufacturers.

Instead of a deposit scheme, a kind of cashback scheme in the form of a return premium will be introduced. After all, a deposit scheme would only impact collection after 15 to 20 years due to the life expectancy of large new appliances. Under the proposed scheme, consumers would pay a recycling fee when they purchase a new appliance. They will be refunded part of this fee (the return premium) if they trade-in an old appliance at the time of purchase. The return premium would be substantial enough (e.g. 20 euros) to spur Dutch consumers into action. The remaining part of the recycling fee would be used to fund circular projects and cover some of the reverse logistics costs.

It is expected that this return premium would result in 100% of old appliances being collected.

Circular ambitions for waste electrical appliances

Part of the recycling fee will be spent on circular projects. The aim of the circularity stimulation programme is to establish a more circular supply chain, with the focus being on setting up structural incentives to optimise the life cycle of appliances. Projects will concentrate on increasing longevity, reusing appliances and parts, and encouraging the use of plastic recyclate in new appliances. It is also predicted that a knowledge institute will be set up. The availability of sufficient financial resources is expected to break down existing barriers.

The choice will be for a visible fee that would increase social commitment and raise consumer awareness, create financial scope for circular ambitions at a central level, and deal with manufacturers' reluctance to accept cost-increasing social factors. The operational costs would be the same whether or not the fee is visible. As such, the total price of the product will not be affected. Incidentally, many consumers currently believe that they still pay a waste disposal fee when they purchase a new appliance.

Fee differentiation

The recycling fee will not include all operational costs. In order for the introduction of a visible recycling fee not to cause the element of competition to be lost, manufacturers will pay part of the operational costs directly to their chosen collective as a membership fee. The manufacturer collectives will therefore only be reimbursed part of the operational costs from the central recycling fee. The fee will also reflect the price differentiation factor. This means a higher fee will be payable on environmentally polluting appliances than on environmentally friendly ones. The desired differentiation effect will be as follows: polluting products will become more expensive, whereas environmentally friendly ones will become cheaper.

The visible recycling fee will encourage manufacturers to commit to collecting 100% of old appliances. Collection systems will be under no pressure to collect fewer old appliances in order to avoid costs.

The results of systemic change

- Collection levels are expected to move towards 100%
- 274 Kt of CO2 emissions will have been prevented
- More products and parts will be given a second or third life
- More recyclable materials will find their way into new products
- The materials cycle will be closed
- Consumer awareness will improve
- The system is guaranteed to continue operating on the basis of cost-effectiveness and efficiency
- There are substantiated financial reasons for a systemic change towards a more circular approach

Widely backed

This proposal is endorsed by Weee Nederland, the majority of refrigerator & freezer manufacturers, and the Urgenda Foundation:

REFRIGERATOR CAMPAIGN

Potential savings for 2020: 0.4 Mt of CO2

