

TAKE-BACK SYSTEM OF ELECTRIC EQUIPMENT IN THE CZECH REPUBLIC

EXECUTIVE SUMMARY OF THE ECONOMIC ANALYSES

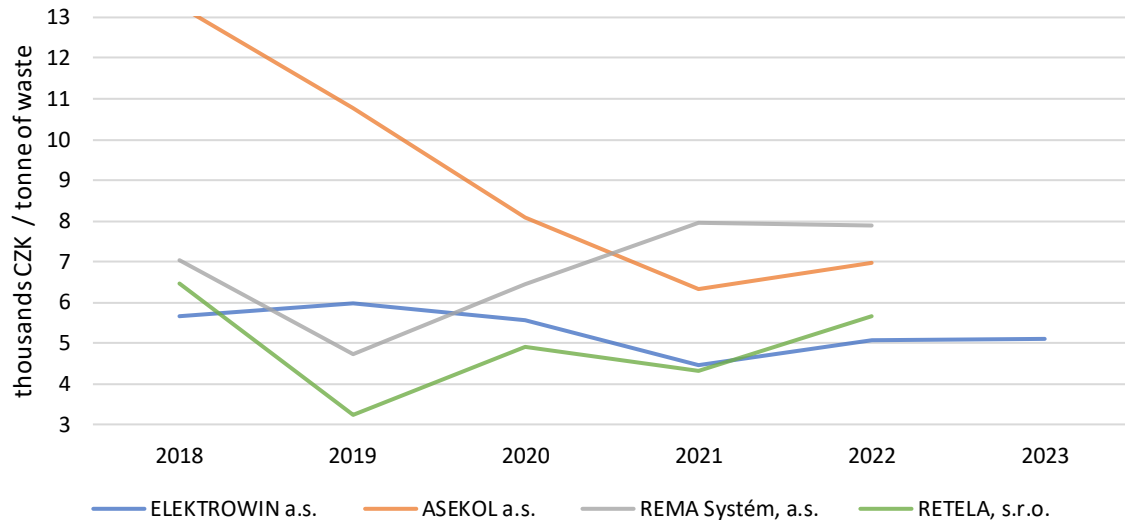
The Extended Producer Responsibility (EPR) system for electrical and electronic equipment is a key element of the Czech Republic's environmental policy that contributes to effective waste management. This system not only motivates producers to make their products more environmentally friendly, but also helps to reduce the amount of waste going to landfills. With the increasing production of electrical and electronic waste and the associated need for sustainable waste management, the EPR in the Czech Republic is proving to be a key tool in achieving the European Union's environmental goals.

Over the last few years, the Czech Republic has experienced a rather dynamic development in the EPR sector. The expansion of collection and recycling obligations, together with the dramatic increase in the volume of electrical equipment placed on the market, has led to a significant increase in the amount of waste to be processed. At the same time, the Czech Republic is required to meet European recycling and take-back targets, increasing the pressure on the efficiency and performance of the whole system. These changes require continuous adaptation and process improvements to cope with the increasing volumes of e-waste, while meeting the established legislative requirements. These developments highlight the need for innovation and streamlined operations in all aspects of the take-back system, from collection logistics to recycling technologies.

In this study, an analysis of key financial ratios was carried out to compare the development and performance of the largest collective systems in the market. This comparison allowed us to develop and compare indicators of the operational and financial efficiency of each system. We also looked at the degree of transparency with which these systems publish information. The results showed that, despite some differences in financial and operational efficiency, there is significant room for improvement in terms of transparency and accessibility of information to the public and other stakeholders.

COST-EFFECTIVENESS OF COLLECTIVE E-WASTE TAKE-BACK SYSTEMS IN THE CZECH REPUBLIC*

(lower number = better result)



* Cost efficiency = total costs in thousands of CZK (output consumption, personnel costs, other operating costs, interest costs and similar costs) / volume of collected material in tonnes

RECOMMENDATIONS FOR OBLIGATED ENTITIES

Obligated entities (i.e. companies that place electrical equipment on the market and are therefore responsible for complying with the EPR) should carefully select the collective system with which they will work. There are a number of key issues to consider when making this choice:

- **Financial stability and history of the scheme:** It is very important to select a scheme that is financially sound, stable, has a financial buffer as required by law and is cost effective, ensuring its ability to meet its obligations in the long term and efficiently. Financial stability and soundness are important to ensure that recycling fees (contributions) do not increase disproportionately or that the system can cope with exogenous shocks (such as the energy crisis).
- **Transparency and availability of information:** The system should regularly publish relevant information on its operation, including financial statements, collection and recycling statistics and other relevant data. The law clearly sets out these minimum obligations - failure to do so increases the risk that the obligated entity will face additional costs in meeting the extended responsibility obligation.
- **Compliance with legal requirements:** It is essential that the scheme meets all legal requirements and complies with the EPR legislation (in particular, timely and transparent disclosure of mandatory information or holding a statutory financial reserve). Failure to do so can lead to legal complications and financial penalties, putting all clients of the collective system at risk.

RECOMMENDATIONS FOR CITIES AND MUNICIPALITIES

When selecting collective take-back systems for electrical and electronic equipment, municipalities should give preference to those that have a proven track record of reliability, legal compliance and transparency in their operations. It is important that these systems have a quality infrastructure, which has a direct impact on the availability and efficiency of services to citizens. Giving preference to reliable systems increases public confidence in the recycling process, contributes to better environmental protection and minimises landfill, but also makes every penny of resources going into the circular economy more efficient.

RECOMMENDATIONS FOR THE REGULATOR

- **Increase collection rates, especially for problematic waste groups:** The focus should be on increasing collection rates, especially for small equipment and solar panels, where current rates are low. This will require improving collection logistics, increasing the number of collection points and raising consumer awareness of the importance of preferred end-of-life management for these products.
- **Encourage re-use:** Re-use should be encouraged where economically and technically feasible, especially for products with a high recycled content (e.g. mobile phones and IT equipment). For large appliances (and other groups in general), consideration should be given to whether the costs of safety testing and certification outweigh the environmental benefits. For small, low-value equipment, efficient recycling should be a priority.
- **Reduce export rates and promote local treatment of waste:** There is a need to reduce exports of e-waste while strengthening domestic treatment capacity. This will increase control over processing and minimise the risk of unethical waste management. This also depends on the institutional conditions for investment support, including the availability of subsidies.
- **Monitor the effectiveness and financial stability of individual collection schemes:** It is important to monitor the performance and financial health of individual collective systems (especially by the regulator – the Ministry of Environment of the Czech republic, or the control body – the Czech Environmental Inspectorate) in order to identify potential problems early and to ensure that obligated entities are sufficiently informed on how to properly select and evaluate collection systems operating in the market.
- **Enforcing the legal obligations of collection systems:** Our analysis shows that the compliance of some collective systems with their obligations, in particular in the area of disclosure or financial management, is at least questionable and tends to go beyond the limits of their legal obligations. Effective enforcement and sanctioning of non-

compliance will minimise inefficiencies and thus support the deepening of the circular economy. The government (public sector) must constantly respond to exogenous changes in order to create optimal conditions for take-back and recycling.