

Development and promotion of the WEEE prevention culture in Greece

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Abstract

WEEE streams challenge the goals towards a circular economy, since WEEE contain valuable and scarce resources that could be prepared for a second life or recovered. In the framework of the project LIFE REWEEE (LIFE14 ENV/GR/000858), Hellenic Recycling Agency (HRA) aims to raise awareness among stakeholders and consumers on the preference for reuse rather than consumption and recycling. A set of specifications have been prepared, applicable to the collection, storage, sorting of WEEE and to all stages of the preparing for reuse process. The specifications aim to provide an integrated legal framework in Greece and simultaneously a standard procedure for managing WEEE in order to encourage the reuse of WEEE as promoted by the Directive 2012/19/EU and the MD 23615/651/E.103/2014. Moreover, a Guide describing prevention and management practices of WEEE addressed to citizens was prepared, which provides information to the citizens concerning ways of extending appliances' life and alternative treatment ways of WEEE. Finally, Repair Events were organized for citizens who had the opportunity to repair their appliances without cost and to be introduced in an attractive way to the WEEE prevention culture. This paper presents the HRA's actions to promote reuse as well as restrictions faced and further actions.

Keywords: WEEE, preparation for reuse, prevention, REWEEE

1. Introduction

The HRA is the authority of the Ministry of Environment and Energy (YPEN) responsible for the design and implementation of the recycling policy in Greece. It is responsible for the approval and supervision of the national Producer Responsibility Organisations (PPOs) for each waste stream and for surveying the progress of recycling in Greece. Currently in Greece there are 22 PPOs covering packaging, portable batteries, accumulators, WEEE, used tires, waste lubrication oils, ELVs and wastes from excavation, construction and demolition (HRA 2019).

The EPR Principle was introduced in Greece in 2001, with the National Law 2939/2001 that was amended with the National Law 4496/2017 which is now in force. Regarding the WEEE stream, the Ministerial Decision (MD) 23615/2014, as amended, transposed the new Directive 2012/19/EU on WEEE into national legislation. According to the Directive, preparation for reuse as a waste management process precedes the recovery/recycling operations. However, there is no separate quantitative target for the preparation for reuse and the target is included in the overall WEEE recovery/recycling target.

Currently in Greece, operate 2 collective PPOs that are founded by producers of EEE, specifically "Appliances Recycling", which is also the Coordinator of the REWEEE project, and "Fotokiklosi", which deals with some WEEE categories only. Both schemes organize their own network of collection points for the return of WEEE from private households, commercial, industrial and other sources (B2B), organize the transfer of the collected WEEE to establishments for the recycle/recovery of WEEE, and are liable for the environmentally proper management of the collected WEEE (Gkitzeni 2016).

2. WEEE prevention and reuse in Greece

2.1. Current situation in WEEE prevention and reuse in Greece

The promotion of the reuse of EEE is part of the National Waste Prevention Plan, which has been in force since 2014. In particular, it is the 4th priority area of the Plan, it is mainly targeted at large urban centers and is planned to be achieved over a 6 year period. However, there have been no major initiatives in this area. Until 2018, no "preparation for reuse" operations are implemented at regional or national level (HRA 2019). Reuse activities that exist are individual initiatives and mainly concern companies active in the wider field of preparation for reuse of EEE, and in particular repair and refurbishment of equipment, which

is not waste (not WEEE) but used EEE. In addition, there are some individual initiatives that focus on the donation of electronic equipment by NGOs or private companies to schools or socially disadvantaged groups as well as on some platforms for the exchange of goods. These initiatives do not necessarily focus exclusively on EEE, nor are there specific quantitative results from these actions. In Greece, activities related to preparation for reuse currently revolve around the units attached to the WEEE received at the 2 Sorting Centers (SCs) developed within the context of the REWEEE project. The only exception to these is the few isolated cases where waste pickers pick WEEE from the waste stream and sell it at flea markets.

2.2. The HRA initiatives

The HRA promotes reuse initiatives both through the guidelines that provides to the EPR schemes it supervises, as well as through the actions of the REWEEE project. Improvement of the cooperation between Municipalities and EPR schemes is one of the major concerns. EPR schemes are encouraged to strengthen the municipal infrastructures, add new collection points and create incentives for Municipalities and citizens to increase collection and preparation for reuse of WEEE (HRA2019). Moreover, in the framework of the Project, the first SC for WEEE that includes also preparation for reuse activities started its operation in February 2019 in Attica Region. A set of specifications have been prepared by HRA, applicable to the collection, storage, sorting of WEEE as well as to all stages of the preparing for reuse process. The specifications will be adopted by the HRA and the Minister of Environment and Energy, which are the relevant regulatory bodies in Greece, and a bulletin is expected to be issued. The specifications aim to provide an integrated legal framework in Greece and simultaneously ensure that similar operations in the future would be developed according to high environmental standards and facilitate the quality assurance of reused EEE. Within 2019 another SC is also planned to operate in the Region of Central Macedonia, according to the timetable of the LIFE REWEEE Project.

In addition, a Guide describing prevention and management practices of WEEE addressed to citizens was prepared. The guide intends to raise awareness about the potential of reuse of EEE. Benefits of WEEE reduction are presented and useful tips to extend the life of household EEE (e.g. refrigerator, mobile phone, tablet) are provided to the citizens as well as ways of the alternative treatment of WEEE (e.g. donation/exchange platforms, repair, green points, SC). The guide is available on line (REWEEE 2016).

Finally, Repair Events are organized for citizens who have the opportunity to repair their appliances without cost and be introduced in an attractive way to the WEEE prevention culture. Repair Events were held as side actions in other events such as the 83th

Thessaloniki International Fair. Until today, in the 5 Repair Events 251 devices have been tested in total and the percentage of the appliances that were repaired exceeded 50%.

2.3. Barriers and restrictions

There have been legislative difficulties with regard to the siting and licensing of the SC's activity. The legislation under which SCs operate restricts their placement in non-urban areas or in the industrial zone (Crafts and Industrial Parks). Municipalities that have expressed interest in participating in the REWEEE Project and intended to develop such SC, mostly do not own premises in areas with the above characteristics. No actions have been taken until now in order to tackle this obstacle, although there are ongoing discussions. In addition, at the beginning of the Project, the environmental licensing of the SCs was not foreseen by the existing legislation. The HRA proceeded in amendment proposal of the M.D. 1958/2012 concerning authorization issues of SCs to the YPEN, in order to be included in the current legislative framework. According to M.D. 1958/2012 amendment, SCs included in the Group 4 "Environmental Infrastructure Systems" as "Sorting Centers of Electrical and Electronic Equipment - Including facilities for preparing for reuse of WEEE" (category "9c") (M.D. 37674/2016 Official Gazette 2471/B/10-8-2016).

2.4. Further actions

The HRA develops, currently, an online platform in which Municipalities will be required to record the quantities of waste they manage, the collaborations they have as well as their equipment regarding collection means and/or treatment facilities etc. Gradually, HRA aims to establish a quantitative target that should be achieved by Municipalities for the collection of different streams. Furthermore, the YPEN (and HRA) together with the Ministry of Interior are working on the implementation of the legislative provision recently adopted (15/4/2019) about the pricing policy of regional waste management authorities and subsequently the municipalities, which introduces financial incentives towards the minimization of the overall waste produced, aiming especially at separate collection of different waste streams and preparation for reuse.

References

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