

Heritage as an Alternative Driver for Sustainable Development and Economic Recovery in South East Europe

Waste electrical and electronic equipment management in Romania. Harmonizing national environmental law with the UE legislation

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Abstract

This article presents the institutional and legal framework in the field of waste electrical and electronic equipment (WEEE) management and elements of environmental impact in conditions that are not complying with the regulations on the WEEE management. The study is based on the description of the WEEE management in Romania in the context of harmonizing national environmental law with European Directives. High amounts of WEEE and the limited capacities for disposal and recycling, related to the necessity of transposing the European Union legislation into national law became a problem for WEEE management in Romania.

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Keywords: waste electrical and electronic equipment(WEEE); WEEE management; European Directives.

1. Introduction

The waste electrical and electronic equipment (WEEE) has become one of the most challenging environmental issues due to the increased quantity and diversity, but also because of the legislation. Waste electrical and electronic equipment are currently considered having the fastest growing in the EU, estimated at 3-5% per year (<http://epp.eurostat.ec.europa.eu>). The European Union has established a WEEE legislation, in order to make an improvement regarding environmental protection. In Romania, the emergence and the development of WEEE

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management system has been stimulated by the need to align to the European Commission Directives (Ciocoiu, Tartiu, 2012).

2. European directives for waste electrical and electronic equipment

2.1. Conceptual framework

According to the new Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE), article 3, the concept "electrical and electronic equipment" or "EEE" means equipment which is dependent on electric currents or electromagnetic fields in order to work properly and equipment for the generation, transfer and measurement of such currents and fields and designed for use with a voltage rating not exceeding 1000 volts for alternating current and 1500 volts for direct current. Directive 2008/98/EC defines waste as "any substance or object which the holder discards or intends or is required to discard" and waste management as "collection, transport, recovery and disposal of waste, including the supervision of such operations and the after-care of disposal sites, and including actions taken as a dealer or broker". The Directive 2012/19/EU explains also what means WEEE, namely "electrical or electronic equipment which is waste, within the meaning of Article 3(1) of Directive 2008/98/EC including all components, sub-assemblies and consumables which are part of the product at the time of discarding". Waste electrical and electronic equipment (WEEE), also known in legal terms as e-waste is a waste type consisting of any electrical or electronic device, broken or abandoned. (Wang Feng, 2008). According to the OECD, e-waste is "any device that uses a power source, that has reached end of life", basically refers to the moment when the equipment is scrapped. Sinha et al. (2005) defined WEEE as "any device connected to a power source that no longer satisfies the current owner to the purpose for which it was created." Deepali Sinha Khetriwal et al. (2007) highlights that the electrical and electronic waste include both "white goods" such as refrigerators, washing machines, microwave ovens and "brown goods" such as televisions, radios, computers that have reached end of life for the current owner.

2.2. Legislation

For the waste electrical and electronic equipment (WEEE), European legislation primarily refers to Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 and Directive 2012/19/EU of the European Parliament and of the Council of 04 July 2012 (ec.europa.eu/environment/waste/weee/legis_en.htm). Except for the mentioned Directives, EU legislation has the RoHS Directive 2002/95/EC which contains restrictions in the use of hazardous substances in electrical and electronic equipment and it has been in force since February 2003. Due to the quality of member in the European Union, Romania had the obligation to transpose the European regulations into the national legislation.

The European Directive no. 2002/95/CE (RoHS) on the restriction of certain dangerous substances which are used in electrical and electronic equipment was transposed in Romania by Government Decision no. 992/2005, while the European Directive 2002/96/CE on waste electrical and electronic equipment was transposed by Government Decision no. 448/2005, then replaced by Government Decision 1037/2010 (Ciocoiu, Tartiu, 2012). If these directives have already been transposed, the new Directive 2012/19/EU of the European Parliament and of the Council of 04 July 2012 on waste electrical and electronic equipment is under transposition into our national WEEE legislation. Regarding the classification of waste electrical and electronic equipment, given that the new directive has not yet been transposed into the national legislation of each European country, the following categories are kept in accordance with Directive 2002/96/EC as shown in Table 1 (Colesca, Popescu, 2013):

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