

Scavenging of valuable components costs

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(EU) – The theft of valuable electrical and electronic components does significant financial damage to European e-scrap recyclers. An estimated 22 percent of e-waste volumes in Europe are subject to scavenging before they arrive at recycling facilities, resulting in annual losses in revenue of more than €170m, according to Jaco Huisman of the United Nations University. Speaking at the International Electronics Recycling Congress (IERC) in Salzburg in January, Mr Huisman discussed the findings of a study of e-waste scavenging and its economic and ecological consequences which he carried out in cooperation with the European Electronics Recycling Association (EERA).

In addition to the economic losses, Mr Huisman also highlighted the environmental problems stemming from the improper removal of valuable components from the electrical and electronic equipment (WEEE). The largest losses were observed for fridges and freezers. More than half of the refrigerators and freezers coming to end-of-life in Europe never reached the recycler. Among those that did, nearly one in four had been stripped of its compressor.



All together, this meant that the refrigerant from nearly two thirds of scrapped refrigerators and freezers was being released to the environment. The impact of these gases was equivalent to 8 million tonnes of CO2 emissions per year or the exhaust of 6 millions cars.

However, large volumes of other types of e-waste were also skimmed for important components before reaching

recycling plants. For IT equipment, Mr Huisman estimates a scavenging rate of 26 per cent. For screens, 22 per cent of arisings are processed outside formal channels. He puts the scavenging rates for large and small appliances at 17 and 18 per cent, respectively.

In view of the large losses due to the scavenging, EERA argues for a restructuring of the contracts between recyclers and equipment producers or their take-back systems. So far, most contracts did not account for "diverted economic value due to scavenging". In order to remedy this "unfair" situation, the association calls for changes in procurement practice.

Mr Huisman also called for attention to the costs recyclers face in fulfilling reporting requirements and achieving the certification of their plants. On average, these ran to around 20 per cent of operating costs. About half of this would be spent on reporting to public authorities, one third on cooperation with take-back systems and only ten to 20 per cent on auditing costs. Given the high cost of compliance, non-compliant companies have a substantial financial advantage, which according to the UNU expert well exceeds the kinds of margins that most recycling companies can achieve. Even greater savings can be achieved when the regulations regarding the removal and treatment of hazardous material are ignored. Mr Huisman puts the cost of depollution and proper disposal of hazardous waste fractions at nearly a third of a compliant firms operating costs on average.

According to Mr Huisman, contracts between recyclers, manufacturers and take-back systems must give greater weight to the technical aspects of e-waste management. Before price levels and recycling quotas are negotiated, the minimum requirements for collection and treatment need to be clearly defined. Due to the scale of scavenging and the number of non-compliant businesses in operation, the recyclers represented by EERA feel themselves to be increasingly subject to unfair competition.

The trade association sees an urgent need for measures to level the playing field, without which it believes that there will be substantially less investment in WEEE processing and recycling in future.



Specifically, the association proposes the establishment of minimum standards in tenders for the collection and processing of e-scrap. Mandatory standards should also be introduced at the legislative and regulatory level, but "smarter" enforcement and controls were also necessary, said EERA. The group sees a need to improve the training for competent authorities, particularly at the regional level.

Also speaking at the IERC, Jan Vlak, president of the WEEE forum, called for legislation to set minimum standards for the recycling of WEEE. Mr Vlak whose organisation is an umbrella body for numerous European e-scrap take-back systems, views the WEEE Labex standard, which it developed, and which has been subsequently implemented as a Cenelec standard, as an excellent candidate. The managing director of the Dutch take-back system Wecycle is convinced that an obligation to implement the standard, which sets out minimum requirements for reporting and WEEE processing, would not only level the playing field, it would also improve the quality of recycling on the whole.

Article from EUWID Recycling and Waste Management 3.2018

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