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SERIES L: CONSTRUCTION, INSTALLATION AND
PROTECTION OF CABLES AND OTHER ELEMENTS OF
OUTSIDE PLANT

Green battery solutions for mobile phones and other hand-held information and communication technology devices

Recommendation ITU-T L.1010

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Green battery solutions for mobile phones and other hand-held information and communication technology devices

Summary

Recommendation ITU-T L.1010 defines a minimum set of parameters necessary to identify green battery solutions that should be considered by developers/manufacturers to reduce the future environmental impact of battery use. The provision of so-called green batteries is to extend the lifetime of handsets, reduce global resources consumption and preserve the environment.

The compliance in terms of supporting green information and communication technology (ICT) efforts will be considered including the use of scarce resources, recycling and reuse. The existing environmental schemes available in different regions and international standards will be considered.

History

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Introduction

This Recommendation defines the requirements for utilizing existing standards that help to reduce the amount of e-waste material introduced into the environment over the service lifetime (including calendar life, number of cycles, thermal environment, etc.) of a battery relative to the service life of the portable electronic devices in which they are designed for use.

In some countries, there is a demand to extend lifetime of handsets using replaceable green batteries to reduce global resources consumptions and preserve environment.

Many companies are globally specialized in collection and reuse of mobile phones and other ICT products. These companies typically source new batteries from the manufacturer or other suppliers in order to meet consumer demand for such products. This model of refurbishment and re-use should contribute to reduce global resources consumptions and preserve environment.

When considering e-waste resulting from batteries, the battery itself as well as the entire life cycle from manufacturing and materials to usage and disposal should be considered. One of the most sensitive parameters of this life cycle is the number of charge/discharge cycles, mainly how many times a battery can be charged and discharged for a given amount of capacity. The number of charge/discharge cycle is important because lower quality batteries tend to generate a significantly greater quantity of e-waste in the environment. This is because lower quality batteries tend to have lower numbers of charge/discharge cycles available, and therefore must be replaced more frequently.

This Recommendation includes environmental considerations in the upstream supply chain, reliability and ecological design ("ecodesign") guidelines to help ensure longer lasting batteries with a reduced environmental impact over the entire life cycle, without compromising product safety.