

Case Studies: How ICT is helping to deliver the low carbon economy

Title: Reducing mobile phones' energy consumption with a charger alarm

NOKIA

Company: Nokia

Summary of what has been achieved:	Reducing the use-phase energy consumption of Nokia phones by introducing an "unplug charger alert" to tell the mobile phone user when the phone's battery is fully charged
Approx scale:	For starters, the alert has been incorporated in three phone models. In the future, it will be introduced in all Nokia phones using the S60 software.
Outcome:	Reduced stand-by consumption of mobile phone charger

Key Objectives

Introducing an "unplug your charger" alert to some of Nokia's phone models, thus reducing the chargers' standby consumption.

Description

For convenience, some mobile phone users may keep their chargers plugged into the wall constantly. From an environmental angle, such behaviour is undesirable. The charger consumes power (so-called standby consumption) even when it is not charging. Nokia decided to introduce an "unplug your charger" alert to some of its phone models. This application detects when the battery is fully charged and alerts the user to remind her to unplug the charger.

Environmental Benefits

If the charger is plugged into the wall all the time, the resulting standby consumption could amount to 60 % of the mobile phone's total lifetime energy consumption. Therefore, the "unplug your charger" alert may reduce the use-phase energy consumption of mobile phones by more than a half.

Scope for further work

The alert will be introduced in all forthcoming Nokia phones using the S60 software.

Any other comments

Nokia believes that having the reminder in the mobile phone helps to make users more conscious about the standby electricity consumption of electrical devices at large. This consciousness, in turn, can inspire users to check their usage habits with devices other than the mobile phone. Thus, the "unplug your charger" reminder in the mobile phone can induce energy savings beyond mobile phone usage.