Entwurf/draft

Energiebetriebene-Produkte-Richtlinie der Europäischen Union (EbP-RL)

Arbeitshilfe zur Auswertung der Vorstudie zu <u>Los 6</u> (Leerlaufverluste (standby and off mode losses)) – <u>Abkürzungen</u>

Die Vorstudie enthält rund 360 Abkürzungen. Die folgende Liste führt 195 Abkürzungen auf, zu denen sich die Erklärungen in der Studie finden oder die sich aus dem Zusammenhang leicht ergeben. Bei den restlichen, hier nicht genannten Abklürzungen, müssen die Erklärungen noch ermittelt werden.

Energy Using Products-Directive of the European Union (EuP-Directive)

Help for the use of the preparatory study <u>Lot 6</u> (standby and off mode losses) – <u>abbreviations</u>

The prepatroy study contains about 360 abbreviations. The following list contains those 195 abbreviations, for which the meanings are obvious or can be found in the study. For the rest the meanings are to be found.

Directive d'écoconception applicables aux produits consommateurs d'énergie

Aide à l'utilisation d'ètude sur <u>lot 6</u> (mode veille et arrêt) – <u>abréviations</u>

13221, Executive order ~ [*USA*] = Energy efficient standby power devices (31/07/01)

2002/31/EC	= Commission Directive 2002/31/EC of 22 March 2002 implementing Council Directive 92/75/EEC with regard to energy labelling of household air-conditioners
2002/40/EC	= Commission directive 2002/40/EC of 8 May 2002 implementing council directive 92/75/EEC with regard to energy labelling for household electric ovens (Richtlinie 2002/40/EG der Kommission vom 8. Mai 2002 zur Durchführung der Richtlinie 92/75/EWG des Rates betreffend die Energieetikettierung für Elektrobacköfen)
2003/66/EC	= Commission Directive 2003/66/EC of 3 July 2003 amending Directive 94/2/EC implementing Council 92/75/EEC
92/75/EEC	= Council Directive 92/75/EEC of 22 September 1992 on the indication by labelling and standard product information of the consumption of energy and other resources by household appliances

92/75/EEC	=	Directive 92/75/EEC with regard to energy labelling of household electric refrigerators, freezers and their combinations
95/12/EC	=	Commission Directive 95/12/EC of 23 May 1995 implementing Council Directive 92/75/EEC with regard to energy labelling of household washing machines and amended by Commission Directive 96/89/EC of 17 December 1996
95/13/EC	=	Commission Directive 95/13/EC of 23 May 1995 implementing Council Directive 92/75/EEC with regard to energy labelling of household electric tumble driers
96/60/EC	=	Commission Directive 96/60/EC of 19 September 1996 implementing Council Directive 92/75/EEC with regard to energy labelling of household combined washer-driers
97/17/EC	=	Commission Directive 97/17/EC of 16 April 1997 implementing Council Directive 92/75/EEC with regard to energy labelling of household dishwashers and amended by Commission Directive 1999/9/EC of 26 February 1999
98/11/EC	=	Commission Directive 98/11/EC of 27 January 1998 implementing Council Directive 92/75/EEC with regard to energy labelling of household lamps
ADEME	=	French agency for energy and the environment
AGO [*Australien*]	=	Australian Greenhouse Office
AIS	=	Application Interworking Specification
aka	=	as known as
AM	=	answering machine *(de: AB = Anrufbeantworter)*
AP	=	Acidifying agents
AT	=	Austria (Österreich)
avg.	=	abverage *(de: Durchschnitt; Mitelwert)*
BAT	=	Best Available Technology *(de: BVT = Beste verfügbare Technik)*
BE	=	Belgium (Belgien)
BIE	=	broadcast infrastructure equipment
Bio IS	=	Bio Intelligence Service S.A. [*Ivry-sur-Seine, Frankreich*]
CDV	=	Committee Draft for Voting stage
CEC [*USA*]	=	California Energy Commission
CECED	=	European Committee of Domestic Equipment Manufacturers
CECP	=	China Energy Conservation Project
CEN	=	European Committee for Standardization
CENELEC	=	European Committee for Electrotechnical Standardization
CODDE	=	Conception Developpement Durable Environnement [*Paris*]
Consump.	=	Consumption ((Energie-)Verbrauch)
CRT TV	=	CRT Television = Caythode ray TV = Caythode ray tube Television) *(de: KS-Fernseher = Kathodenstrahl-Fernseher)*

CY	=	Cyprus *(de: Zypern)*
CZ	=	Czech Republic *(de: Tschechien)*
DE	=	Germany *(de: Deutschland)*
DEA	=	Danish energy authority
DENA	=	German energy agency *(de: Deutsche Energieagentur)*
DK	=	Denmark *(de: Dänemark)*
DUH	=	Deutsche Umwelthilfe e.V.
E.V.A.	=	Austrian energy agency *(de: Energieversorgungsagentur)*
E3 Committee	=	National Appliance and Equipment Energy Efficiency Committee
ebP	=	energiebetriebenes Produkt
ECMA	=	European Computer Manufacturer Association
ECP [*Kanada*]	=	Environmental Choice Program
EE	=	Estonia *(de: Estland)*
EES [*Australien*]	=	Energy Efficient Strategies
EIA	=	Environmental Impact Assessment
EL	=	Greece *(de: Griechenland)*
ELC	=	European Lamp Companies Federation
EN 62018	=	Power consumption of information technology equipment - Measurement methods
EN 62087	=	Methods of measurement for the power consumption of audio video and related equipment *(fr: Methodes de mesure de I'energie consommee des appareils audio, video et analogues)* *(de: Meßverfahren für den Energieverbrauch von Audio-, Video- und verwandten Geräten)*
EP	=	Eutrophication
EPS	=	external power supply
ES	=	Spain *(de: Spanien)*
ESPR	=	Energy Star Program Requirement
ESWH	=	Electric Storage Water Heaters
ETSI	=	European Telecommunications Standards Institute
EU	=	European Union (Europäische Union)
EU-15	=	"old" member states: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden and United Kingdom *(de: Belgien, Dänemark, Deutschland, Finnland, Frankreich, Griechenland, Irland, Italien, Luxemburg, Niederlande, Österreich, Portugal, Schweden, Spanien und Vereinigtes Königreich)*
EU 25	=	Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and United Kingdom

(de: Belgien, Dänemark, Deutschland, Estland, Finnland, Frankreich, Griechenland, Irland, Italien, Lettland, Litauen, Luxemburg, Malta, Niederlande, Österreich, Polen, Portugal, Schweden, Slowakei, Slowenien, Spanien, Tschechien, Ungarn, Vereinigtes Königreich und Zypern)

EuP = energy using product

Ext1 [*improvement option*] = external improvements (power strips, master slave) To avoid off-mode losses or to switch off a device, which normally does not have an offmode power strips with switches can be used. This option is similar to the option U1, but more practicable for the user and therefore likely to be used more often.

Ext2 [*improvement option*] = communication between devices or phantom power supply to peripherals This is difficult to realise as a product option, because it involves more than one product, but it could lead to products going into standby simultaneously, or to peripherals needed no own power supply and being without power, when the main device is deactivated.

FEMP [*USA*] = Federal Energy Management Program

FI = Finland *(de: Finnland)*

FPS = Fairchild Power Switches

FR = France *(de: Frankreich)*

g = Gramm

GEEA = Group for Energy Efficiency Appliances *[de: frühere Abkürzung: GEA = Group for Efficiency Appliances]*

GHz = Giga-Hertz

GWh = Gigawatt hour(s) *(de: Gigawattstunde(n))*

GWh/a = gigawatt hours per year *(de: Gigawattstunden je Jahr)* [*1 GWh/ = 1'000 MWh/a = 1'000'000 kWh/a*]

h = Household

h/d = hours/day *(de: Stunden je Tag)*

h/y = hours/year *(de: Stunden je Jahr)*

HM = Heavy Metals

HU = Hungary *(de: Ungarn)*

HVJI = high-voltage junction-isolation

Hz = Hertz

IE = Ireland *(de: Irland)*

IEA = International Energy Agency

IEC 107- 1:1997 = Recommended methods of measurement on receivers for television broadcast transmissions, Part 1: General considerations - Electrical measurements other than those at audio-frequencies

IEC 555 = Disturbances in supply systems caused by household appliances and similar electrical equipment

IJP	=	Ink Jet Printer
IP	=	Intrenet Protocol
IPP	=	European Integrated Product Policy
IrDA	=	IRDA
IT	=	Italy *(de: Italien)*
IT	=	Information Technology
IZM	**=**	Fraunhofer Institute for Reliability and Microintegration [*Berlin*]
JBCE	=	Japan Business Council in Europe
JEA	=	Japanese Environment Association
JGKA	=	Japan Industrial Association of Gas and Kerosene Appliances
K	=	Kelvin
KEMCO [*Korea*]	=	Korea Energy Management Corporation
kg CO2 eq	=	*(de: Kilogramm CO$_2$-Äquivalent)*
kHz	=	Kilo-Hertz
kt	=	*(de: Kilotonne(n))*
kWh	=	kilowatt hour(s) *(de: Kilowattstunde(n))*
kWh/a	=	kilowatt hours per year *(de: Kilowattstunden je Jahr)*
LC	=	Live Cycle *(de: Lebenszeit; Lebensdauer)*
LCC	=	Life Cycle Costs
LCD-TV	=	LCD television (Liquid Crystal Display Television) *(de: FK-Fernseher= Flüssigkristall-Fernseher)*
Lot 7 [*EbP-RL*]	=	battery chargers and external power supplies
LT	=	Lithuania *(de: Litauen)*
ltr	=	litres *(de: Liter)*
LU	=	Luxembourg *(de: Luxemburg)*
LV	=	Latvia *(de: Lettland)*
m2	=	Quadratmeter
MEPS [*Australien und Neuseeland*] = Minimum Energy Performance Standard		
MHz	=	Mega-Hertz
MOCIE [*Korea*]	=	Ministry of Commerce, Industry and Energy
MT	=	Malta
N	=	north
NEEI	=	New Energy Efficiency Index
nhm	=	non heating mode
NL	=	The Netherlands *(de: Niederlande)*
NMS	=	"new" member states: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia *(de:*

Estland, Lettland, Litauen, Malta, Polen, Slowakei, Slowenien, Tschechien, Ungarn und Zypern)

No. = Number *(de: Nummer)*

o = Office

O+S1 [*improvement option*] = more efficient power supply (internal)

O+S2 [*improvement option*] = more efficient power supply (external) More efficient power supplies would reduce the off-mode losses and the side "losses" as part of the standby energy consumption.

O+S3 [*improvement option*] = auto-standby transitions, auto-off functions Auto standby functions can reduce the energy consumption by shortening the on-mode time of a product or by turning the device from a high standby mode into a low standby mode. This is especially applicable for job-based products.

Off1 [*improvement option*] = hard-off switch on primary side A primary side hard off switch can be installed in almost every product to avoid off-mode losses, but a lot of products do not have hard-off switches in order to keep some functions available all the time.

OM = Operational Mode

PC = Personal computer

PDA = ECCJ [*Japan*]

PFC = Power Factor Correction

PJ = Petajoule

PM = Particulate Matter

POP = Persistent Organic Pollutants

pop_i^y = population of country i for the year y

PR_i^y = household penetration rate for country i and for the year y

PSU = Power Supply Unit

PT = Portugal

PL = Poland *(de: Polen)*

PUC = Product-use-cluster

PUC 0 = Always On products

PUC 1 = On / Off products

PUC 2 = On / Standby products

PUC 3 = Job-based products

PWF = Present Worth Factor

R = rest of EU-25

RG_{pop}^k = rate of growth of population from year N to year N+k

RG_{PR}^5 = rate of growth of the penetration rate for the five years

RP = Rear Projection

S+E1 [*improvement option*] = adjusting network (device only wakes up when it's meant) Lot 6 networked standby products often "wake up" via network, even when the incoming information is not related to them. As an external measure, this "bad traffic" can be avoided by adjusting the network so that the device does not unnecessarily reactivate from standby. As a product design measure, the wake-up mechanism could be more selective or have different levels of robustness.

SC1 [*scenario*] = worst case

SC2 [*scenario*] = b-a-u scenario

SC3 [*scenario*] = best case

SC4 [*scenario*] = LLCC

SC4-1 [*scenario*] = soft stock model

SC4-2 [*scenario*] = per mode model

SC4-2 [*scenario*] = LLCC-based, linear

SC4-3 [*scenario*] = simplified model

SC5 [*scenario*] = 2-tier

SC5-2 [*scenario*] = 2-tier, linear

SC5-n [*scenario*] = 2-tier, new soft stock

SC6 [*scenario*] = Tier 1 only)

SC6-2 [*scenario*] = Tier 1 only, linear

SC7-2 [*scenario*] = Tier 2 only, linear

SE = Sweden *(de: Schweden)*

Senter NOVEM = Netherlands agency for energy and the environment

SK = Slovakia *(de: Slowakei)*

SL = Slovenia *(de: Slowenien)*

St1a [*improvement option*] = power buffering to supply standby (batteries, supercaps)

St1b [*improvement option*] = autarkic energy supply for standby functions (e.g. solar)

St1c [*improvement option*] = secondary power supply for standby functions There are different options to supply the standby circuit with power without keeping the main power supply activated. For options like batteries or supercaps it has to be checked, whether these options really lead to reduced energy consumption, or whether the energy consumption is only shifted from one mode to another or, in the worst case, the energy consumption actually increases due to additional losses. A secondary power supply with higher efficiency in the low power range can be used to reduce the losses in the power supply during standby.

St2a [*improvement option*] = improved circuit design of the standby function, possibly with more integrated ICs or microcontrollers New and optimised microcontrollers with integrated power save functions can lead to less components and therefore to less "side losses" and a reduced energy consumption.

St2b [*improvement option*] = improved circuit design of the standby function, possibly with more dedicated microcontrollers By installing additional microcontrollers, which are more dedicated for the standby functions, the standby energy consumption can be reduced, because only the "small" microcontroller need to be powered.

St3 [*improvement option*] = reduced circuits powered during standby functions (electronic switches/relays) Installing electronic switches or relays that isolate non-standby circuits from the power source leads to a reduced standby energy consumption. The ability to control the flow of power is an essential precondition for power management.

St4 [*improvement option*] = enabling user settings to switch off circuit blocks not needed during standby It should be possible for the user to permanently disable a functionality which is not needed. This user setting should really switch that part off.

St5 [*improvement option*] = not allowing the user to disable standby time-out completely This is an option to enforce the effect of options such as auto-standby transitions, but it may contradict the wishes of the user (or of administrators).

St6a [*improvement option*] = use of no or very low power display technologies (e.g. bi-stable displays to indicate status)

St6b [*improvement option*] = use of more efficient signal lamps (other than LEDs, efficient LED circuits or flashing LEDs)

St7 [*improvement option*] = avoiding continuous preheating (not necessary for modern CRTs/printers etc.) Old CRT displays preheat continuously to enable a fast reactivation. This is not necessary anymore through new optimised components and a different circuit design.

St8 [*improvement option*] = use of non-volatile memory to eliminate continuous power need for memory e.g. settings

St9 [*improvement option*] = minimising the power level of necessary safety functions

STB	=	Set-Top-Box
STEM	=	Swedish national energy administration
SFOE	**=**	Swiss federal office of energy *(de: BFE = Bundesamt für Energie)*
THz	=	Tera-Hertz
TIG	=	Topten International Group
TV	=	television *(de: Fernsehen)*
TWh	=	terawatt hours *(de: Terwattstunden)*
UK	=	United Kingdom
UPS	=	Uninterruptible Power Supply

Use1 [*improvement option*] = always unplug/disconnect The user has the option to always unplug a device when it is not needed, but this is not really practical for the user and therefore not a realistic scenario to follow.

VOC	=	Volatile Organic Compounds
W	=	Watt

WAPRy	=	weighted average penetration rate for the year y
Wh/h	=	watt-hours/hour *(de: Wattstunden je Stunde)*
WOL	=	Wake-up on LAN
y	=	year
YEC	=	Yearly Energy Consumption