NL Agency
Ministry of Economic Affairs, Agriculture and Innovation

Networked standby

Developments in the EU

IEA 4E Standby Power Annex / SEAD workshop
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>> Focus on energy and climate change

Networked standby – state of play in EU

• Preperatory study (Lot 26) identified networked standby as an important horizontal aspect of product where regulation is needed to prevent considerable increase in energy consumption.

• At the final stakeholder meeting of the preperatory study on 14 February 2011 the idea was welcomed to deal with networked standby as an amendment of the current standby and off mode regulation EC/1275/2008.

• At 14 June 2011 an informal workshop with industry was held.

• A draft working document by the European Commission was discussed at the Consultation Forum on 14 September 2011.

• The Commission is now preparing an impact assessment and a draft final document for interservice consultation, WTO notification and voting in the Regulatory Committee.

• Timing depends on resource availability at the Commission and priority versus other products.

Networked standby - introduction

- Networked standby: a condition where the product is able to resume applications (reactivation) through a remotely initiated trigger via a network connection (remote access).
- Networked standby is increasingly important:
  - Energy consumption expected to increase from 54 TWh/year (in 2010) to 91 TWh/year (in 2020)
  - Savings potential: 40 TWh/year (in 2020)
- Need for action:
  - Timely
  - Horizontal; based upon scope EC 1275/2008. NB: check for products originally in scope 1275/2008 but taken out (televisions).
- Aspects of the solution:
  - Definitions
  - Requirements
  - Measurement method

Definitions I

- Networked product: requirements only for these products
- Network port: port through which the product can be reactivated
- Networked standby: is a condition, not a mode
- Network availability: main functional aspect, expressed in resume time, but resume time will not be used in regulation due to problems with measuring resume time for all products covered by the regulation.
  - High Network Availability: resume time < 1 s (“immediately”)
  - Low Network Availability: resume time > 1 s
- Categories of products (equipment):
  - HiNA products (e.g. router, switch, network access point)
  - Products with HiNA functionality
  - Other networked products (having Low Network Availability (LoNA))

Definitions II

<table>
<tr><th colspan="4">Products in the scope of Annex I EC/1275/2008</th></tr>
<tr><td colspan="3">Networked equipment:
HiNA equipment
(equipment with one or more main functions – but no other: router, switch, hub, modem, network access point (not being a terminal), VoIP telephone, video phone),
equipment with HiNA functionality
(equipment with (combined) functionality of router, switch, hub or network access point (not being a terminal) included, but not being HiNA equipment)
other networked equipment
that that has the ability to be connected to a network and has one or more network ports.</td><td rowspan="2">Other equipment
(including equipment that can be connected to a network but has no network port(s))</td></tr>
<tr><td>HiNA equipment</td><td>Equipment with HiNA functionality</td><td>other networked equipment</td></tr>
<tr><td colspan="2">HiNA requirements</td><td>LoNA requirements</td><td rowspan="3">comply with current 1275 (maintaining a network connection is not considered technical justification for not offering power management)</td></tr>
<tr><td>need not comply with current 1275 power management requirement
(even if network ports are disconnected or, for wireless ports, deactivated)</td><td>need to comply with current 1275 power management requirement
when all network ports are deactivated (Tier 1)/disconnected (Tier 2) or, for wireless ports, deactivated</td><td>need to comply with current 1275 power management requirement
when all network ports are deactivated (Tier 1)/disconnected (Tier 2) or, for wireless ports, deactivated</td></tr>
<tr><td colspan="3">If the equipment has one or more standby modes, it shall comply with the current 1275 requirements for standby mode
when all network ports are disconnected or, for wireless ports, deactivated</td></tr>
</table>

Requirements

- Power management requirement:
  - Exemption when factors not in control of the manufacturer make power management and the required values impossible to achieve.
  - Default delay time: shortest possible period appropriate for the intended use, but no longer than 20 minutes.
- Manually switch to network standby, possibility to disable network standby and to manually disable wireless ports.
- Information requirements: power management for network standby shall be shown on website with product information
- Specific requirements:

Networked standby condition	**Tier 1** (1-Jan-2014)	**Tier 2** (1-Jan-2016)
HiNA	12 W	8 W
LoNA	4 W	2 W

Measurement method

• Test method deals with products with multiple (types of) network ports.

• Product should comply with the requirements for all types of network connections, when 1 network connection is present. The other ports should not be connected or switched off (in case of wireless).
Other conditions should reflect the product as shipped.

• Example: a product with 4 Ethernet ports, 2 WiFi connections and 2 USB ports, all of which are network ports, is subjected to 3 tests, one for each type of connection.The product should comply with the requirements for all tests.

Expected savings in 2020