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# **Technical Specifications for Computers – State of play**



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**Meeting of the European Community  
Energy Star Board  
24 May 2006**

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# **Current Specifications for Computers (2000)**

- **Sleep mode: 15 – 30 W (or more for larger power supplies)**

**Very high compliance rate**

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# Main Framework of the New Specification

- Power supply requirement
  - All modes (standby (off), sleep, idle)
  - Idle mode: On, no activity
  - Three main groups:
    - Desktops, integrated, gaming, desktop servers
    - Notebooks
    - Workstations
  - Two tiers:
    - Tier 1: 1 July 2007 – 31 December 2008
    - Tier 2: 1 January 2009 →
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# Power Supply Requirement

- **Internal power supplies:**
    - 80% efficiency at 20%, 50%, 100%
    - Power factor  $\geq 0.9$
  
  - **External power supplies:**
    - Comply with Energy Star requirements
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# Preliminary Consumption Levels

## Desktops, integrated, servers, (gaming)

- Standby (off): 2 W
  - Sleep: 4 W
  - Idle - Cat. A: 75 W  
(high performance for processor, graphic card and RAM)
  - Idle - Cat. B: 50 W
  
  - Power adders:
    - WOL (sleep / standby): 0.7 W
    - RAM (sleep): 0.2 W per module greater than two
  
  - All levels to be checked against new data
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# Preliminary Consumption Levels

## Notebooks

- Standby (off): 1.75 W
  - Sleep: 3 W
  - Idle: 20 W (no display)
  
  - Power adders:
    - WOL (sleep / standby): 0.7 W
    - RAM (sleep): 0.2 W per module greater than two modules
  
  - All levels to be checked against new data
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# Preliminary Consumption Levels

## Workstations

- Standby (off): 2 W
  - Sleep: 7 W
  - Idle: 115 W
  
  - Power adders:
    - WOL (sleep / standby): 0.7 W
    - RAM (sleep): 0.2 W per module greater than two
  
  - A TEC approach considered:
    - Power levels in standby, sleep and idle modes
    - Annual hours in each mode
    - -> Yearly consumption
  
  - All levels to be checked against new data
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# Timeline Tier I

- June: All definitions and modes final
  - June: Industry testing starts
  - Early August: Data from industry to EPA
  - Mid August: EPA / EC submit proposed levels
  - Late August: Industry comments on levels
  - Early Sept: Final draft with levels
  - Mid to Late Sept: Industry final comments
  - Late Sept: Final specification (pending EC approval)
  - EC approval
  - July 2007: Spec is effective
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# Tier II from 1 January 2009

## Issues:

- Performance – energy benchmark
  - or
  - Revised idle state levels
  - Energy use notebook displays
  - Desktop categories (A – B)
  - Sleep levels game consoles & servers
  - Inclusion of thin clients
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# Conclusions

- **Important issues finalised:**
    - Timeline
    - Power supply requirement
    - Inclusion of idle mode
    - Overall framework
  - **All modes will be included**
  - **Aim at 25% target**
  - **Planning for Tier II revision**
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