AGENDA

1. Welcome and Introductions

2. 2nd Steering Committee meeting (June 2016)
   • Approval of minutes
   • Review of actions

3. Update from the Signatories
   • Newly launched consoles
   • VA 2016 revision
   • The 2017 review

4. Update from the European Commission
   • Adoption of 2016 Consoles VA revision
   • VA Guidelines

5. AOB

6. Date of the next Steering Committee meeting
WELCOME AND INTRODUCTIONS
2ND STEERING COMMITTEE MEETING (JUNE 2016)

• Approval of minutes
## 2ND STEERING COMMITTEE MEETING (JUNE 2016)

### Review of actions

<table>
<thead>
<tr>
<th>Task</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signatories to send Product Compliance Reports to VA Administrator.</td>
<td>DONE</td>
</tr>
<tr>
<td>VA Administrator to upload Product Compliance Reports on website by 30 June.</td>
<td>DONE</td>
</tr>
<tr>
<td>Signatories to prepare 2016 VA revision document.</td>
<td>DONE</td>
</tr>
<tr>
<td>EC to check if College of Commissioners needs to sign-off on updated document.</td>
<td>DONE</td>
</tr>
<tr>
<td>VA Administrator to send Doodle poll for December 2016 SC date.</td>
<td>DONE</td>
</tr>
<tr>
<td>VA Administrator to prepare and share minutes of the current meeting.</td>
<td>DONE</td>
</tr>
</tbody>
</table>
UPDATE FROM THE SIGNATORIES

CONSOLES ON THE MARKET

• Sony
• Microsoft
• Nintendo
Current platforms
Steps to lower PS4 energy use

**LAUNCH 2013**

- System on a Chip
- Efficient power supplies (92% conversion)
- Clock and power gating
- Background download
- Low power peripheral charging
- Low power standby and networked standby modes
  
  *(beyond regulatory requirements)*
Steps to lower PS4 energy use

2015

- Default APD set to 20 minutes in EU
- USB charging powers-down after 3h
- Suspend to RAM: power down without losing progress
- Optimisation of SOC operation and scaling, particularly for media play
- Optimisation of memory operation and hardware
- Blu-ray electronics condensed and integrated onto the motherboard
- Other minor component integrations
Steps to lower PS4 energy use

2016

- Die shrink from 28 nm to 16 nm
PS4 Slim power reduced by ‘43%’

- Three years since launch in 2013
- Media & navigation power now <50 W
PS4 power consumption < PS3*

- Reduction is through deliberate steps to reduce energy use

*PS4 navigation & media power consumption now lower than the last, most efficient PS3 model
PS4 achieves a paradigm shift in energy use of consoles

- PS4 power reduction more rapid than PS3 *
- 150 kWh/yr saving vs business as usual case

*Assuming same usage between consoles
PS4 Pro: 4K gaming console

- Launch date 10th November: 4K media and games not yet widely available
- PS4 Pro uses 40% more energy than PS4 Slim, with double the performance*

* PS4 Pro = 4 TFLOPS, 124 kWh/yr (PS4 slim = 1.84 TFLOPS, 89 kWh/y)
PS4 Pro: allows 4K game play

- PS4 Pro 4K media play 79-89 W
- PS4 Pro has twice the performance of PS4 allowing 4K gaming
Steps to Lower Xbox One Energy Use

Xbox One – Launch 2013 – Improvements over previous generation

- System on a Chip
- Low CPU, GPU, and Memory power states for non-gaming modes
- Clock and power gating
- Background download
- Low power connected standby
- Suspend to RAM: power down without losing progress
Steps to Lower Xbox One Energy Use

Xbox One – Launch 2013 – Improvements over previous generation
- System on a Chip
- Low CPU, GPU, and Memory power states for non-gaming modes
- Clock and power gating
- Background download
- Low power connected standby
- Suspend to RAM: power down without losing progress

Xbox One S– Launch 2016 – Further Improvements
- PSU efficiency increase from 82% to 88% in game mode
- 16nm FinFet System on Chip
- New 4k UHD media playback mode with only 5W increase from base media playback
# Xbox One and Xbox One S – Modal Power Comparison

<table>
<thead>
<tr>
<th></th>
<th>Home menu</th>
<th>DVD playback</th>
<th>Blu-ray playback</th>
<th>1080p streaming</th>
<th>Default auto-power down time setting</th>
<th>Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xbox One</td>
<td>61 watts</td>
<td>68 watts</td>
<td>69 watts</td>
<td>63 watts</td>
<td></td>
<td>60</td>
</tr>
<tr>
<td>Xbox One S</td>
<td>27 watts</td>
<td>33 watts</td>
<td>33 watts</td>
<td>32 watts</td>
<td></td>
<td>60</td>
</tr>
</tbody>
</table>
Xbox One S power consumption is less than Xbox 360 S for similar functions

Average Power Consumption of Xbox 360 S and Xbox One S*

*Compares most efficient Xbox 360 with Xbox One S
Xbox users are offered choices for energy use on standby mode. Improvements since launch shown below.

<table>
<thead>
<tr>
<th>Energy-saving Mode</th>
<th>Connected Standby</th>
</tr>
</thead>
<tbody>
<tr>
<td>watts</td>
<td>watts</td>
</tr>
<tr>
<td><strong>Xbox One 2013</strong></td>
<td>0.48</td>
</tr>
<tr>
<td><strong>Xbox One S 2016</strong></td>
<td>0.40</td>
</tr>
</tbody>
</table>

Console starts in 45 seconds with button push. Downloads performed after power-up. Console starts in two seconds. Provides background downloads.
Previous Generation Nintendo Console Power Consumption

Wii power consumption

Wii Mini power consumption*

* The Wii Mini doesn’t include media playback features
**Nintendo Wii U Power Consumption**

*The Wii U has automatic power down capability that is enabled by default, with a delay of 1 hour for game play and 4 hours for media streaming.*
UPDATE FROM THE SIGNATORIES

Estimated electricity reductions for ultra-high definition consoles vs BAU cases

Annual electricity reduction per 9 million sold = 1.5 TWh
Assuming 37 million installed base by 2020 = 5.9 TWh electricity use reduction
UPDATE FROM THE SIGNATORIES

TIMESCALES OVERVIEW – IMPLEMENTATION OF VOLUNTARY AGREEMENT

April 2015: Voluntary agreement approved

November 2015: Independent Inspector & Administrator selected

December 2015: First Steering Committee meeting

February 2016: 2015 product compliance reports submitted by members

May 2016: Independent Inspector declares all producers compliant & website launched

June 2016: Second Steering Committee meeting
UPDATE FROM THE SIGNATORIES

TIMESCALES OVERVIEW – VA REVIEW AND CONTINUED VA IMPLEMENTATION PLANNED IN 2017

**November 2016:**
Minor clarifications to be completed to agreement (test method and reporting)

**December 2016:**
Third Steering Committee meeting: review and agree edits to agreement

**February 2017:**
2016 product compliance reports to be submitted

**July 2017:**
Manufacturers must present a review and new proposed requirements to Commission & key stakeholders (e.g. NGOs, EU Members States, ...)

**May 2017:**
Independent Inspector to complete annual compliance report
UPDATE FROM THE SIGNATORIES

VA 2016 REVISION

• Improvements were highlighted by both Signatories and Independent Inspector
• These revisions allow for a more efficient application of the VA:
  • Corrected minor grammatical and formatting edits
  • Removed redundancies and unnecessary text
  • Clarified some procedures (e.g. data collection, review and testing)
  • Revised dates relating to the submission of product compliance reports and the independent inspector’s annual compliance report
  • Improved product compliance report template
UPDATE FROM THE SIGNATORYIES

THE VA 2017 REVIEW WILL CONSIDER THE FOLLOWING:

- Summary of compliance results
- Assessment of overall energy savings (>1 TWh/year by 2020)
- Review of planned future game console technology
- Review of possible energy performance benchmark
- Review of non-energy requirements (e.g. material efficiency)
- Recommendations for future commitments
Circular Economy: Review underway

• Review of circular economy proposals and studies underway, including:
  • JRC Technical Report: Feasibility study for setting-up reference values to support the calculation of recyclability / recoverability rates of electr(on)ic products
  • NL Ministry Environment/Eco-design - Marking requirements for EEE items (relevance and feasibility)- Recycled content- Strategic metal recycling
  • CEN-CENELEC-ETSI work programme in response to m/543 on material efficiency - BT154/DG10216/INF
  • Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions closing the loop - An EU action plan for the circular economy
  • IEEE1680.1, 4.3.1.6 JRC Science and Policy Report: Environmental footprint and material efficiency support for product policy
  • OCAD3E Waste electrical and electronic equipment authorised coordinator agency technical report: Application of environmental contribution modulation criteria
  • EU GPP Guidance for the purchase of computers and monitors

• Our Voluntary Agreement already contains a number of requirements included in these parallel proposals.
FISH

+ CH1B
UPDATE FROM THE EUROPEAN COMMISSION

• Adoption of 2016 Consoles VA revision
• VA Guidelines
AOB AND DATE OF NEXT STEERING COMMITTEE MEETINGS (2017)

- Thursday 1 June 2017 - TBC
- Schedule for further meeting?
END OF MEETING