Energy Efficiency of Games Consoles

Self-Regulatory Initiative to further improve the energy efficiency of Games Consoles

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1 Introduction: Scope of the Self-Regulatory Initiative

This Self-Regulatory Initiative (SRI) establishes a voluntary agreement, under the terms of EU Directive 2009/125/EC on Energy Related Products, for improved energy and resource efficiency, and end of life treatment and recycling of Games Consoles, which use more than 20 watts in Active Game mode. Game software is not included in the scope of this proposal.

The objective of this SRI is to reduce the environmental impacts of games consoles over their life-cycle and the achievement of energy savings through better design. Information on how this SRI meets the principles and criteria laid out in Annex VIII of EU Directive 2009/125/EC and its associated guidelines are provided in Annex E.

This document is intended to supplement, but does not replace, applicable laws, directives and implementing measures currently in effect. Manufacturers are responsible for complying with the regulations and other legal requirements that apply to their products.

Compliance with this document shall be demonstrated through the tests described in Annex A. Unless otherwise specified, the tests shall be conducted with retail software written specifically for the Games Console under test and certified by the Console manufacturer.

This SRI is limited to Games Console placed on the EU market by the Signatories of the SRI.

1.1 Mapping the Structure of the Games Consoles Self-regulation with the Guidelines on self-regulation measures

Guidelines on the self-regulation measures concluded by industry under the Ecodesign Directive 2009/125/EC	**Self-Regulatory Initiative to further improve the energy efficiency of Games Consoles**
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2 Definitions

2.1 Definition of a Games Console

A Games Console is a computing device whose primary function is to play video games. Games Consoles share many of the hardware architecture features and components found in general personal computers (e.g. central processing unit(s), system memory, video architecture, optical drives and/or hard drives or other forms of internal memory). Games Consoles covered by this SRI are those that:

- Utilise either dedicated handheld or other interactive controllers designed to enable game playing (rather than the mouse and keyboard used by personal computers); and
- Are equipped with audio visual outputs for use with external televisions as the primary display; and
- Use dedicated Console operating systems (rather than using a conventional PC operating system); and
- May include other secondary features such as optical disk player, digital video and picture viewing, digital music playback, etc.; and
- Are mains powered devices that use more than 20 watts in Active Game mode with either internal or dedicated external power supply units.

2.2 General Definitions

A. High Definition Console: Game Consoles capable of rendering High Definition (HD) video output with resolutions greater or equal to 720p (1280 pixels x 720 lines) or 1080i (1920 pixels x 1080 lines) or 1080p (1920 x 1080 lines) via HDMI, but excluding Ultra High Definition Game Consoles as defined below.

B. Standard Definition Console: Support for video output with resolutions of less than 720p (1280 pixels x 720 lines) or 1080i (1920 pixels x 1080).

C. Gesture and Speech Recognition Natural User Interface (NUI): Functionality which allows the user to interact with the Games Console without the need for a game pad, external controller or other external device. This is accomplished by sensing and recognition of physical gestures and/or voice commands.

D. Ultra High Definition Console: Game Consoles having potential of rendering video output with resolutions greater or equal to 4Kx2K (3840 pixels x 2160) in addition to capability defined for High Definition Console.

2.3 Operational Modes

The principal operational modes applicable to Games Consoles are defined below. It is understood that not all Games Consoles operate in all defined modes, and some Games Consoles may operate in modes that are not defined. In the future, Games Consoles may operate in new modes that are currently not defined.

A. Active Gaming: Mode in which the Games Console is actively performing its primary function of game playing.

B. Media Playback: Mode in which the decoding and playing of video files and codecs up to HD content, on the Games Console's own optical disk and streaming media players, using the following formats:

AVI

- File extensions: .avi, .divx
- Containers: AVI
- Video profiles:MPEG-2, MPEG-4 Part 2 (Simple Profile and Advanced Simple Profile)
- Video bit rate: 5 Mbps with resolutions of 1280 × 720 at 30 fps
- Audio profiles: Dolby® Digital (2 channel and 5.1 channel), MP3
- Audio max bit rate: No restrictions

H.264/ MPEG-4 part 10

- File extensions: .mp4, .m4v, mp4v, .mov, .avi
- Containers: MPEG-4, QuickTime
- Video profiles: Baseline, main and high (up to level 4.1)
- Video bit rate: 10 Mbps with resolutions of 1920 × 1080 at 30 fps

- Audio profiles: AAC, 2-channel, Low Complexity
- Audio max bit rate: No restrictions

MPEG-4 Part 2

- File extensions: .mp4, .m4v, .mp4v, .mov, .avi
- Containers: MPEG-4, QuickTime
- Video profiles: MPEG-4 Part 2 (Simple Profile and Advanced Simple Profile)
- Video bit rate: 5 Mbps with resolutions of 1280 × 720 at 30 fps
- Audio profiles: AAC, 2-channel, Low Complexity
- Audio max bit rate: No restrictions

SPPTE 421M, WMV (VC-1), MPEG MVC

- File extensions: WMV
- Containers: ASF
- Video profiles: WMV7 (WMV1), WMV8 (WMV2), WMV9 (WMV3), VC-1 (WVC1 or WMVA) in simple, main and advanced up to level 3
- Video bit rate: 15 Mbps with resolutions of 1920 × 1080 at 30 fps
- Audio profiles: WMA7/8, WMA9 Pro (stereo and 5.1), WMA Lossless
- Audio max bit rate: No restrictions

C. Navigation: Mode in which no other mode is engaged and the Games Console is displaying a menu of functions (the "Home Menu") from which the user may select.

D. Networked Standby: As defined in EU Regulation (EU) No 801/2013, means a condition in which the equipment is able to resume a function by way of a remotely initiated trigger from a network connection.

E. Standby: As defined in EU Regulation (EU) No 1275/2008 (Annex II), a mode in which the Games Console is connected to the mains power source, depends on energy input from the mains power source to work as intended and provides only reactivation function, or reactivation function and only an indication of enabled reactivation function, and/or information or status displays. These functions may persist for an indefinite time.

The Games Console may enter a Standby mode from any other mode after:

i. The Games Console receives a notification from the user to enter the standby mode, or
ii. The Games Console initiates an automatic power down ("auto-power down" or "APD") to the Standby mode.

The Games Console may exit the Standby mode in order to carry out any maintenance activity. After the maintenance activity is complete, the Games Console shall return to the previous Standby mode.

3 Commitments

Signatories agree to use reasonable endeavours to comply with the SRI commitments, set out in this Section 3, and to:

a. Abide by the general principles of Games Consoles design set out in Section 3.3 (Other Commitments);
b. Reduce the power consumption of Games Consoles to the minimum necessary to meet their operational specification while not limiting the industry's ability to improve functionality and to innovate;
c. Ensure that the maximum power consumption targets set out in Section 3.2 (Power Caps) are not exceeded. In particular:
    i. The requirements of this SRI, detailed in Section 3, shall apply to at least 90% of games console units placed on the market and/or put into service by each signatory;
    ii. Should a Signatory comply with any subsequent power consumption targets of the SRI as set out in Section 3.2 (Power Caps) before the entry into force of those targets, then that Signatory is entitled to make that achievement public; and
d. Foster open communication and active engagement with the European Commission, Member States and other relevant stakeholders regarding the energy efficiency of Games Consoles. This includes sharing expertise, experience, information, and best practice with the signatories to other Eco-design self-regulation measures.

3.1 General Auto-Power Down (APD) Requirements

Games Consoles subject to this SRI shall have an APD function activated as default prior to placing on the EU market. The APD function shall power the Games Console down to a low power state according to the parameters outlined below:

- For operational modes other than Media Playback, the period of inactivity required to trigger APD shall be set at 1 hour or less from the time of the last user input when powering down to regulatory standby or networked standby mode;
- In Media Playback mode, APD shall be triggered within 4 hours of starting any audio or video media playback or within 1 hour or less of user inactivity after termination of video media content;
- The periods of inactivity before a Games Console powers down to a low power state have been chosen through consultation with stakeholders in order to avoid disrupting the user experience, which could lead to the feature being disabled. The

APD requirements are also consistent with those already in force for other product groups under Eco-design, such as TVs.

- The user may have the option to:
    - Disable APD for all modes.
    - Change the time settings for the APD function from within the system settings menu options, e.g. for retail display purposes or for heavy game users;
- In limited circumstances, users may be prompted to suspend APD temporarily to allow certain types of games or software applications to run without user input, e.g. simulation games and video streaming which run without user input for periods longer than 1 hour. Once selected, the APD suspension may remain enabled for replay of such game or media content upon restart of the Games Console;
- APD may be suspended temporarily to allow for the uninterrupted performance of any system update, system maintenance, software installation or content download/upload and shall not occur during the display of an error message to users in the event of a system error;
- After an automatic wake event, Games Consoles shall power down automatically within 5 minutes after performing required system maintenance and downloads, or other functions that may require an automatic wake-up;
- Peripherals included by the Signatory with the Games Console and using the Games Console as a direct power source shall also power down automatically and shall be included in APD power measurements and requirements;
- Games Console operating systems shall communicate an auto-power down event through an Application Programmable Interface (API) or other means;
- Some software published for current or previous-generation Games Consoles may not necessarily be compatible with the APD functions described in this SRI. Games Console manufacturers shall use reasonable efforts to work with the video game software industry to incorporate these APD functions when publishing software for Games Consoles covered by this SRI; and
- Individual Games Console manufacturers may introduce new and innovative approaches to APD as and when the same or better energy savings are possible along with improved consumer experiences. This SRI will be updated at regular intervals, as required, to reflect any such significant innovations.

3.2 Power Caps

The SRI uses modal power caps to further enhance energy efficiency of Games Consoles. These modal power caps are applicable to the Media Playback and Navigation modes. In

cases where additional functionality, as defined in this document, is provided by a Games Console, the corresponding function-specific power cap shall be added as noted in the Additional Functionality Table (see below). The power caps defined in this SRI are based on adoption of best available technologies embodying substantial energy savings (such as system on a chip, power scaling, and efficient power supplies). These requirements are based upon a number of studies as explained in Annex F. To date there is no final Energy Star specification published on Games Consoles.

Power cap requirements for both High Definition and Ultra High Definition Games Consoles are set out below.

Power Cap Requirements for Games Consoles

Navigation Mode

	High Definition Consoles (Watts)	Ultra-High Definition Consoles (Watts)
Tier 1 Effective from 1st January 2014	90	90
Tier 2 Effective from 1st January 2016	-	-
Tier 3 Effective from 1st January 2017	70	70
Tier 4 Effective from 1st January 2019	-	-

Media Playback Mode

	High Definition Consoles (Watts)	Ultra-High Definition Consoles (Watts)
Tier 1 Effective from 1st January 2014	90	-
Tier 2 Effective from 1st January 2016	-	90
Tier 3 Effective from 1st January 2017	70	-
Tier 4 Effective from 1st January 2019	-	70

Additional Power Cap allowances for Games Consoles using a Natural User Interface

	High Definition Consoles (Watts)	Ultra-High Definition Consoles (Watts)
Tier 1 Effective from 1st January 2014	+20	-

Tier 2 Effective from 1st January 2016	-	+20
Tier 3 Effective from 1st January 2017	+15	-
Tier 4 Effective from 1st January 2019	-	+15

Amendments to the SRI will be considered so that power consumption of all modes, including gaming, can be reported publically, and the feasibility of including computational performance in console efficiency benchmarks, where applicable and comparable across devices performing gaming, will be reviewed during the 2017 review of the SRI. The Signatories will keep under review the possibility of further reductions in power consumption and will take this into account when the SRI is reviewed, as set forth in Section 7.2.

3.3 Non-energy Efficiency Commitments

- As specified in the product compliance reports in Annex B, each Signatory will provide energy efficiency information for consumers within console operating instructions either provided with the console itself, onscreen or hardcopy, or online. Instructions for use provided to consumers with their consoles will be neutrally worded so as not encourage users to disable power-saving features.

- Games Consoles subject to this SRI, and placed on the market within each reporting period, shall also comply with the following resource efficiency and end-of-life design requirements:
    - A refurbishment or out of warranty repair service for each games console will be made available, and supported by the following requirements:
        - Technical documentation shall be made available to authorised repair centres to enable repair or refurbishment of each games console
        - Spare parts shall be made available to authorised repair or refurbishment centres for each games console
        - To improve both recycling and reuse at end-of-life, maintenance and refurbishment of each games console shall be possible by non-destructive disassembly
        - Consumers will be informed of end-of-life processing, refurbishment, and out-of-warrantee repair options available within the operating instructions of each games console (with instructions either provided with the console itself, onscreen or hardcopy, or online)

- To improve recycling at end-of-life, console plastics parts >25g will be marked indicating their material composition (using ISO conforming marks), with the following exceptions:
  - The part has <1cm^2 level surface available for marking
  - The performance or function of a part is compromised e.g. buttons with tactile surface, plastic lenses, or display screens.
  - External transparent parts
  - Marking is not technically possible due to the specific production method of the plastics used in the part e.g. extrusion moulding.

3.4 Other Commitments

- Software downloads to Games Consoles shall not increase the power consumption of the console above the initial power cap for Media Playback and Navigation (according to test procedures as specified in Annex A-1 –Test & Verification Procedures).
- Whilst adhering to the general principle of designing products to reduce power consumption, Games Consoles manufacturers and software providers are constantly innovating their products as new service concepts and technologies develop. To avoid stifling such innovation, any unanticipated additional secondary or new functionality which contributes to an incremental increase in power consumption, but which is not listed in this document, should be deactivated during the measurement process. This new functionality shall be considered during the planned review of the SRI in 2017. However, in the event that such deactivation is either inappropriate or unnecessary, then this requirement shall not be compulsory. The test results shall explicitly list any functions that were deactivated during the measurement process.
- Each Signatory shall include further details about the technical specifications and features of each Games Console as well as any related environmental information specified in the product compliance report, which will be made available on the SRI website.
- To publicize and disseminate information about this SRI, a dedicated website will be established within six months of the recognition of the SRI by the Commission, including a facility for visitors to submit questions about the SRI.

4 Organisation of the Self-Regulatory Initiative

4.1 Nature of Self-Regulatory Initiative

This SRI to further improve the energy efficiency of Games Consoles is a self-regulation mechanism[1] offered as a unilateral commitment by the Signatories. As such, this SRI is neither legally binding nor co-regulation[2].

4.2 Signatories and Market Coverage

Any manufacturer of Games Consoles falling within the scope of this agreement may join the SRI as a Signatory. Each Signatory joins this SRI on its own behalf. In aggregate, the Signatories to this SRI account for more than 80% of the unit sales of Games Consoles in the EU for the relevant Reporting Period. Signatories will provide data from independent 3rd party to prove market coverage within 45 days following a change in Signatories and every two years during the operation of the SRI.

This SRI shall not give rise to any commercial expectations or liabilities between the Signatories in respect of the fulfilment of their individual commitments. Each Signatory shall share the costs necessary to maintain and administer the SRI.

All Signatories shall be treated equally. There shall be no special arrangements for individual Signatories.

4.3 Governance

The SRI is governed by the Steering Committee. The Steering Committee shall be comprised of Signatories, a representative of the European Commission and a Chairperson. The purpose of the Steering Committee is to facilitate the Signatories' compliance with the requirements of this SRI with the aim to further improve the energy efficiency of Games Consoles that are placed on the EU market.

Each Signatory shall be represented in the Steering Committee by an appointed Representative, who may be accompanied and supported by additional experts.

The Steering Committee shall be responsible for:

a. The overall direction of the SRI;

b. The targets, co-ordination, priority setting and management of the SRI, including monitoring and reporting;

c. Reviewing progress under the SRI and making any amendments that may be required;

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[1] DIRECTIVE 2009/125/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 October 2009 establishing a framework for the setting of eco-design requirements for energy-related products

[2] COM(2002) 278 final, COMMUNICATION FROM THE COMMISSION of 5 June 2002 Action plan "Simplifying and improving the regulatory environment"

d. Electing a Chair, from amongst the Signatories, who shall hold office for two years and who may be re-elected once;

e. Establishing a budget and apportioning accordingly the costs among the Signatories. The costs of the SRI Administrator are to be shared equally per Signatory, whereas the costs of the Independent Inspector will be paid per Product Compliance Report submitted by each Signatory (see Section 4.4);

f. Establishing rules of procedure, including voting rules and recording minutes;

g. Appointing an Administrator and Independent Inspector;

h. Setting up a SRI website

The Chair of the Steering Committee shall be elected by the Full Members and shall act as an ex-officio individual without voting rights. The Chair shall have no executive or representative function unless this is delegated by vote of the Steering Committee.

The Chair of the Steering Committee is responsible for convening physical and teleconference meetings of the Steering Committee at regular intervals. Any member of the Steering Committee may request the Chair to convene a meeting. There shall be at least two meetings every Reporting Period, at least one of which shall be a physical meeting. Physical meetings should be held in Brussels unless the Steering Committee decides otherwise. The Chair, the representative of the European Commission and delegate to record the meeting minutes shall be present physically.

The Steering Committee shall develop and adopt further rules of procedure and it may decide to delegate powers, where it deems it to be necessary, to specific individuals or to sub-committees, subject to the agreement of all Signatories.

Other relevant stakeholders shall be provided information about the meetings of the Steering Committee via the SRI website. They may participate as observers, without voting rights, and may be invited to comment. These stakeholders may include representatives of the EU Member States, environmental and consumer Non-Governmental Organisations (NGOs) as well as any other person or entity the Steering Committee considers to be a legitimate stakeholder.

All decisions of the Steering Committee must be taken by consensus (at least 90% of all members). However, if despite reasonable efforts, no consensus can be reached then a decision can be taken by a two-thirds majority.

4.4 Administration of the Self-Regulatory Initiative

The Steering Committee may choose to appoint a third party Administrator to assist with shared activities such as organising meetings and minutes, maintaining the SRI website,

responding to questions on the SRI, and other tasks that may be agreed from time to time by the Steering Committee.

The Steering Committee shall, in addition, carry out the process of procuring an Independent Inspector to verify that each Signatory complies with the SRI requirements, and to prepare an Annual SRI Compliance Report. Signatories shall agree on and select one or more candidates to serve as the Independent Inspector. The European Commission shall be consulted on the selection of the Independent Inspector and will ratify the final choice. The final and ratified choice of Independent Inspector shall be made public via the SRI website within 30 days of its appointment. The Independent Inspector will be an independent third party who is tasked with, and responsible for, the collection and processing of information supplied by Signatories and determining each Signatory's compliance with the SRI. The Independent Inspector shall be free of any conflicts of interest.

The Steering Committee shall engage the services of the Administrator and Independent Inspector upon terms and conditions that shall require undertakings of confidentiality from the Administrator and Independent Inspector, and which shall also set out any requirements or applicable mechanisms for a process of appeal, should this be necessary.

Signatories shall complete a Product Compliance Report (see Annex B) for each of their Games Consoles covered by the SRI. Based on the Product Compliance Reports, the Independent Inspector shall prepare an Annual Compliance Report to be submitted to the Steering Committee within 4 months following the end of each Reporting Period. The publication of the Annual Compliance Report will be the responsibility of the Independent Inspector.

5 Reporting on Compliance with the Self-Regulatory Initiative

5.1 Reporting of Information by Signatories

Each Signatory shall complete and provide a Product Compliance Report, together with any supporting technical documentation and data establishing its individual sales in the EU to the Independent Inspector for use in preparing the Annual Compliance Reports and statement as set out in this document. This shall be carried out for each Games Console covered by the SRI it places on the EU market in the format defined by Annex B and in compliance with the relevant provisions of Annex A (Test Procedure for All Modes for Game Consoles). In addition, each Signatory shall report to the Independent Inspector the percentage of units placed on the EU market that fall within the scope of this SRI but which fail to comply.

Once finalised, the Independent Inspector will submit a copy of the Annual Compliance Report to the Steering Committee. After these comments are received and accepted by the Steering Committee, the Annual Compliance Report shall be published on the SRI website.

Since the Signatories regard each other as market competitors, they have a legitimate interest in keeping commercially sensitive information confidential. To satisfy the reporting requirements under this SRI, Signatories are not required to disclose information relating to the energy consumption of their Games Consoles to the extent that such information is commercially sensitive. The information to be provided by the Signatories necessary to comply with their reporting obligations under the SRI, however, is not generally considered commercially sensitive. Signatory reporting shall be proportionate to the need for transparency so that commercially sensitive information may be disclosed provided that adequate, contractual protections to safeguard the confidentiality of such information are put into place. Public sources of sales data will be used from independent third parties only, and the Signatories will not exchange their data on sales.

5.2 Transparency of the Self-Regulatory Initiative

The Chair must prepare the draft agenda and an invitation to the planned Steering Committee meeting must be sent to all members of the Steering Committee and the Consultation Forum. An announcement of the meeting, including the provisional agenda, shall also be posted on the SRI website at least 30 days in advance of the meeting..

Documents to be presented at the Steering Committee meeting must be circulated to all members of the Steering Committee and Consultation Forum, and posted on the SRI website no later than 7 working days in advance of the meeting.

Minutes must be prepared by the Chair and sent to all members of the Steering Committee and Consultation Forum and posted on the SRI website within 30 days of the Steering Committee meeting. Members and observers must have at least two weeks to submit comments on the minutes before final publication.

5.3 Compliance and Reporting Periods

Signatory compliance with the SRI can be assessed by any interested party at any time through the Independent Inspector's Annual Compliance Report. Further information can also be found in the Product Compliance Reports that will be published online by each Signatory for each of their Games Consoles covered by the SRI.

"Reporting Period" means the calendar year running from 1 January to 31 December of 2014 and each subsequent calendar year, corresponding to each Tier as referenced in section 3.2 (Power Caps). Product compliance shall be assessed over that period and recorded in the Product Compliance Report, which shall be submitted to the Independent Inspector no later than 2 months after the end of the relevant Reporting Period.

Starting from 2015, each Signatory shall produce and submit to the Independent Inspector completed Product Compliance Reports and supporting information to demonstrate

compliance of their Games Consoles falling within the scope of the SRI and placed on the EU market over the preceding calendar year.

The deadlines for submission and publication of the Signatories' Product Compliance Reports and the Independent Inspector's Annual Compliance Report are specified in Table 1:

Requirement	**Deadline (year following the end of Reporting Period)**
Submission of Product Compliance Reports by Signatories to Independent Inspector	28 February
Draft Annual Compliance Report submitted to the Steering Committee	31 March
Comments on draft report	30 April
Online publication of final Annual Compliance Report by Independent Inspector	31 May
Online publication of the Product Compliance Reports	30 June

Table 1: **Deadlines for Compliance Report submission and publication**

If a new Signatory joins the SRI after the start of a Reporting Period, the new Signatory may choose one of the following reporting timelines:

- First Reporting Period runs from the date of signature until the end of that Reporting Period so that the Reporting Period for this Signatory is less than 12 months in the first year; or
- First Reporting Period commences at the start of the next Reporting Period and the new Signatory postdates its commitment.

5.4 Non-compliance with the Requirements

A Signatory shall be considered to be non-compliant with the SRI if either of the following applies:

- The Signatory has not provided a completed Product Compliance Report for any Games Consoles covered by the SRI they placed in the EU market within the previous compliance period by the 28 February deadline;
- The Signatory has provided a completed Product Compliance Report which indicates that more than 10% of the Games Consoles covered by the SRI that it has placed on the EU market during the applicable Reporting Period do not comply with the commitments of the SRI as set out in Section 3.

The Independent Inspector of the SRI Steering Committee shall contact any Signatory who is considered to be non-compliant by 15 April of each Reporting Period to seek to redress the

cause of the non-compliance. Opportunities should be provided to discuss the circumstances of the case and, if possible, to resolve the cause of non-compliance.

A Signatory who remains non-compliant by 28 February of the following year shall forfeit its status as a Signatory of the SRI. This event shall be recorded in the Steering Committee meeting minutes and shall be made public via the SRI website within seven days of the meeting taking place.

Within 30 days of the exclusion of a non-compliant signatory, remaining signatories must commission a report proving coverage of at least 80% of products placed on the market.

6 Monitoring of the Self-Regulatory Initiative

Compliance of individual Signatories with the SRI can be assessed by any interested party from the Independent Inspector's Annual Compliance Report published online via the SRI website by 31 May of the year following each Reporting Period. The text of the SRI and updated contact details for each Signatory shall be published on the SRI website. Stakeholders, including Member State representatives, industry, environmental NGOs and consumers' associations may send comments about the implementation of the SRI through the website via a dedicated email contact address to the SRI or to the individual Signatories of the SRI.

The Steering Committee shall monitor regularly the overall effectiveness of the SRI and consider whether any revision is required in order to allow it to better achieve its objectives.

More detailed information on the Independent Inspector's method for data collection, processing and analysis is provided in Annex C.

7 Revision of the Self-Regulatory Initiative

7.1 Review of Self-Regulatory Initiative

The SRI Steering Committee shall hold at least two meetings every Reporting Period, at least one of which shall be a physical meeting, in order to:

- Evaluate the effectiveness of the SRI in achieving its energy efficiency objectives;
- Evaluate current and future developments that may influence Games Consoles power consumption with a view toward revising the SRI, if warranted; and
- Set future targets, as appropriate, to increase Games Consoles energy savings.

The time and place of each meeting are subject to agreement by all Signatories. The meeting date(s), venue and agenda will be published on the SRI website at least one month before the meeting date. The meeting minutes will be published within one month of the meeting date.

7.2 Decisions to Amend the Self-Regulatory Initiative

The SRI will be reviewed in 2017 at the latest and every few years thereafter, to assess the essential elements of the SRI and whether a new version needs to be prepared. The SRI Signatories will complete the review, taking into consideration views of relevant stakeholders, and present this together with any proposed amendments to the SRI to the European Commission. The conclusions of the review process, including revision of any essential elements, will also be presented to the Consultation Forum. In particular, if appropriate this review will consider possible requirements beyond Tier 4 in 2019. The SRI can only be amended with full agreement of each SRI Signatory, in consultation with the European Commission. The new version of the SRI, as amended, will be submitted to the European Commission for endorsement.

For example, if an energy using functionality which is not listed in the body of the SRI is added to a Games Console after the SRI effective date, the review may consider appropriate revisions to the SRI to include an appropriate test methodology for this functionality. Data from this testing would be used to determine baseline power consumption caps for future Games Consoles, if appropriate, and the new functionality may be taken into account to establish new power consumption caps in future Tiers.

8 Voluntary Withdrawal or Dissolution of the Self-Regulatory Initiative

- A Signatory may voluntarily terminate its Signatory status by giving thirty days' written notice to the Chair of the Steering Committee.
- The Chair must inform the Steering Committee within seven days of receipt of the written termination notice from the Signatory.
- Information of the withdrawal must be recorded in the minutes of the following Steering Committee meeting and posted on the SRI website.
- A Steering Committee meeting must be convened within 30 days whenever any of the conditions justifying the dissolution of the SRI occur.
- The SRI may be dissolved by a decision of the Steering Committee.
- The Signatories may choose to maintain the SRI regardless of the Commissions' withdrawal of recognition, however, this does not prevent the Commission from adopting ecodesign and energy labelling regulations.
- In the event of dissolution, any residual assets, after payment of all outstanding liabilities, shall be returned to the Signatories of the SRI.

Annex A-1 –Test & Verification Procedures

1. Scope

The purpose of this test method is two-fold:

- Measure Games Console power consumption in the major operating modes and verify compliance with power caps of this SRI; and
- Verify compliance with the auto-power down requirements of this SRI.

This test procedure covers the Games Console major operating modes listed below. It is understood that not all Games Consoles provide all the operational modes listed.

1. Active Gaming
2. Navigation
3. Media Playback
    i. DVD
    ii. Blu-ray Disc
    iii. Streaming HD
4. Off/Standby/Networked Standby after Auto-Power Down
5. Off/Standby/Networked Standby after pressing the Off button
6. Off/Standby/Networked Standby when switched off from controller
7. Other modes for research purposes

2. Testing Requirements

2.1 Game and Media Selection

Game title: The tests shall be conducted with retail software written specifically for the Games Console under test, certified by the Games Console manufacturer. Select the top 3 selling game titles for the Games Console under test in the previous Reporting Period. Each manufacturer must also select media from content available for use on their Games Console. The games and media titles used for testing must be listed in the Product Compliance Report, and the same titles must be used for any comparative benchmarks or audit testing.

2.2 Number and selection of units to be tested

Compliance testing shall be performed using a randomly selected unit of the relevant model of Games Console. The model is deemed to have passed if, for each SRI requirement set out in the Product Compliance Report, the test results show that the limit values are not exceeded by more than 10% or 0.1 W, whichever is the greater. If all SRI requirements are passed on this basis, then the model is considered to be compliant and no further testing is required. If this is not the case, then three more randomly selected units should be tested. For each SRI requirement, the model is deemed to have passed if the average of the results of these latter three tests do not exceed the limit values by more than 10% or 0.1 W,

whichever is the greater. If all SRI requirements are passed on this basis, then the model is considered to be compliant, otherwise it is considered to be non-compliant.

If the variation in results between sample units of the same model is found to be so large that it is not possible to obtain consistent results by using the compliance testing methodology defined above, any uncertainty shall be resolved by further testing using a statistically significant sample size.

2.3 Approved meters, testing accuracy and test conditions

Refer to IEC 62087 specification on "Methods of measurement for the power consumption of audio, video and related equipment".

3. Equipment Unit Under Test (UUT) Preparation

1. Record the manufacturer and model name of the UUT on the test sheet.
2. Connect to display through HDMI connection if available, or AV connection if the Games Console is not High Definition capable. The digital HD capable input of the display used shall accept the following HD video formats (according to the "HD Ready 1080p" standard specification):
   - 1280x720 @ 50 Hz and 60 Hz progressive (720p)
   - 1920x1080 @ 50 Hz and 60 Hz interlaced (1080i)
   - 1920x1080 @ 24 Hz, 50 Hz and 60 Hz progressive (1080p)
3. Power the UUT on.
4. Peripherals: Configure all UUT to peripherals connections (e.g., Infra-Red, Bluetooth) as shipped.
5. Network connection: For Games Consoles with wireless capability, power to a wireless LAN radio (e.g. IEEE 802.11) should remain on during testing and must maintain a live wireless connection to a wireless router or network access point, which supports the highest and lowest data speeds of the client radio, for the duration of testing. For Games Consoles without wireless capability, the Ethernet connection should be enabled.
6. Remove any disk (media or game) from UUT.
7. Apart from above settings, ensure that the UUT is configured as shipped including all accessories (and motion sensor bar if available) connected, APD and software configured as shipped with default settings. For wireless controllers and peripherals requiring integral batteries, ensure batteries are fully charged prior to the next step.
8. Power the UUT off.
9. Connect an approved meter capable of measuring true power to an AC line voltage source set to the appropriate voltage/frequency combination for the test.
10. Plug the UUT into the measurement power outlet on the meter. No power strips or UPS units should be connected between the meter and the UUT. For a valid test to take place the meter should remain in place until power data is recorded for all modes.
11. Record the AC voltage and frequency.

12. Power the UUT on.

4. Energy Consumption Measurement and Auto-Power Down Verification Test Method

The following modes, if provided in the UUT, shall be tested as indicated below:

4.1 Navigation

13. Disable all power management.
14. Go back to the Home Menu and wait for 15 minutes.
15. Set the meter to begin accumulating true power values at an interval of less than or equal to 1 reading per second. Accumulate power values for a minimum of 5 minutes and record the average (arithmetic mean) value observed during that period.

4.2 Media Playback DVD

16. Insert the test DVD movie.
17. Navigate through DVD menu and play the video for 15 minutes.
18. Set the meter to begin accumulating true power values at an interval of less than or equal to 1 reading per second. Accumulate power values for the first 5 minutes of the video and record the average (arithmetic mean) value observed during that 5 minute period.
19. Eject the DVD.

4.3 Media Playback Blu-ray Disc

20. Insert the test Blu-ray Disc (BD) movie.
21. Navigate through BD menu and play the video for 15 minutes.
22. Set the meter to begin accumulating true power values at an interval of less than or equal to 1 reading per second. Accumulate power values for the first 5 minutes of the video and record the average (arithmetic mean) value observed during that 5 minute period.
23. Eject the BD.

4.4 Streaming HD

24. Enter the Games Console's own online movie service, and access the test movie (same title as for the DVD and Blu-ray test).
25. Play the movie for 15 minutes.
26. Set the meter to begin accumulating true power values at an interval of less than or equal to 1 reading per second. Accumulate power values for the first 5 minutes of the video and record the average (arithmetic mean) value observed during that 5 minute period.
27. Exit video streaming mode, go back to Home Menu.

4.5 Off/Standby/Networked Standby after pressing the Off button

28. Press Off button
29. Wait for 5 minutes for the Off/Standby mode power to stabilize
30. Set the meter to begin accumulating true power values at an interval of less than or equal to 1 reading per second. Accumulate power values for at least 5 minutes and record the average (arithmetic mean) value observed during the measurement period.
31. Power the UUT back on.

4.6 Off/Standby/Networked Standby when switched Off from controller

32. Power UUT Off using controller. If the controller offers several ways to power the UUT Off, use the most commonly used/most intuitive way, and record your choice
33. Wait for at least 5 minutes for the Off/Standby mode power to stabilize
34. Set the meter to begin accumulating true power values at an interval of less than or equal to 1 reading per second. Accumulate power values for at least 5 minutes and record the average (arithmetic mean) value observed during that 5 minute period.
35. Power the UUT back on.

4.7 Navigation Mode APD

36. Enable all power management as default.
37. Wait until the operating system has fully loaded, and the Home Menu is displayed and stable. Start the timer.
38. Wait for 65 minutes and do not perform any interaction with the Games Console or controller so as not to delay APD.
39. Set the meter to begin accumulating true power values at an interval of less than or equal to 1 reading per second. Accumulate power values for at least 5 minutes and record the average (arithmetic mean) value observed during the measurement period.
40. Power the UUT back on.

4.8 Active Gaming APD

41. Wait until the operating system has fully loaded, and the Home Menu is displayed and stable.
42. Insert disk into Games Console
43. Start game, move beyond any introduction section, play game regularly for at least 5 minutes
44. Start the timer
45. Wait for 65 minutes and do not perform any interaction with the Games Console or controller so as not to delay APD.
46. Note the time when the Games Console auto-powers down.
47. Set the meter to begin accumulating true power values at an interval of less than or equal to 1 reading per second. Accumulate power values for at least 5 minutes and

record the average (arithmetic mean) value observed during the measurement period.

48. Power the UUT back on by pushing a button/key on the controller or Games Console

4.9 Disk-Based Media Playback APD

49. Wait until the operating system has fully loaded, and the Home Menu is displayed and stable.
50. Insert movie test title into Games Console
51. Start the movie, move beyond movie menu
52. Once movie is playing, start timer
53. Wait for 245 minutes and do not perform any interaction with the Games Console or controller so as not to delay APD.
54. Note the time when the Games Console auto-powers down.
55. Set the meter to begin accumulating true power values at an interval of less than or equal to 1 reading per second. Accumulate power values for at least 5 minutes and record the average (arithmetic mean) value observed during the measurement period.
56. Power the UUT back on

4.10 Media Streaming Playback APD

57. Wait until the operating system has fully loaded, and the Home Menu is displayed and stable.
58. Locate test movie title on the Games Console's own online movie service
59. Start the movie, move beyond movie menu
60. Once movie is playing, start timer
61. Wait for 245 minutes and do not perform any interaction with the Games Console or controller so as not to delay APD.
62. Note the time when the Games Console auto-powers down.
63. Set the meter to begin accumulating true power values at an interval of less than or equal to 1 reading per second. Accumulate power values for at least 5 minutes and record the average (arithmetic mean) value observed during the measurement period.
64. Power the UUT back on

End of test procedure.

Annex A-2: Verification of non-energy requirements and energy efficiency information

If compliance with requirements in Section 3.3 is questioned, the signatories can provide the following means of verification to confirm compliance for each console.

Requirement	**Means of verification**
A refurbishment or out of warrantee repair service will be made available	Contact information for authorised service centres providing refurbishment and / or out of warrantee services covering countries where console is on sale.
Spare parts shall be made available to authorised repair or refurbishment centres for each games console	List of spare parts available to authorised service and / or refurbishment centres.
Maintenance and refurbishment of each games console shall be possible by non-destructive disassembly	A letter signed by a representative of authorised service centre confirming that maintenance of console is possible by non-destructive disassembly.
Console plastics parts >25g will be marked indicating their material composition (using ISO conforming marks), apart from exceptions listed in Section 3.3	Sample product for inspection of parts
As specified in the product compliance reports in Annex B, each Signatory will provide energy efficiency information for consumers within console operating instructions (with instructions either provided with the console itself, onscreen or hard copy, or online). Instructions for use provided to consumers with their consoles will be neutrally worded so as not encourage users to disable power-saving features.	Copy or link to instructions for use.

Annex B – Product Compliance Report Template

For each Reporting Period, each Signatory shall provide a completed Product Compliance Report along with compliance test results[3] for each model of Games Console that falls within the scope of this SRI which that Signatory places on the EU market.

The goal of compliance testing is to determine whether the average power consumed in the applicable operational modes for the Games Consoles covered by the SRI comply with the modal power caps set out in Section 3.2 of this SRI.

In order to report the power values, Annex A (Test Procedure for All Modes for Games Consoles) of the SRI shall be followed for the modes applicable to Game Consoles defined in Section 2. The equipment shall be selected according to Annex A, Section 2 (Testing Requirements) and prepared according to Annex A, Section 3 (Equipment Unit Under Test (UUT) Preparation), procedure 1 to 12.

[3] See template in following pages

PRODUCT COMPLIANCE REPORT: HIGH DEFINITION GAMES CONSOLES

Signatory:

Model name(s)	
Model Number(s)	

Date submitted:

Top 3 game titles tested from preceding year:

1. [Game 1]
2. [Game 2]
3. [Game 3]

Media titles tested:

DVD: [Title] / [Not applicable]
Blu-ray: [Title] / [Not applicable]
Streaming HD: [Title] / [Not applicable]

SRI Requirements:

Title	Procedure Nr.	Power Caps	Measured power consumption (W)	Test result	Comments
Navigation Mode Testing	13 - 15	Tier 1: 90W Tier 3: 70W		□Pass □Fail □Not applicable	
Media Playback DVD	16-19	Tier 1: 90W Tier 3: 70W		□Pass □Fail □Not applicable	
Media Playback Blu-ray Disc	20-23	Tier 1: 90W Tier 3: 70W		□Pass □Fail □Not applicable	
Streaming HD (name own player in comments)	24-27	Tier 1: 90W Tier 3: 70W		□Pass □Fail □Not applicable	
Off/Standby/Networked Standby after pressing the off button	28-31	**Power limits for Standby and Networked standby as defined in:** COMMISSION Regulation (EU) No.1275/2008 (Annex II) and COMMISSION REGULATION (EU) No 801/2013		□Pass □Fail □Not applicable	

Off/Standby/Networked Standby when switched off from controller	32-35	**Power limits for Standby and Networked standby as defined in:** COMMISSION Regulation (EU) No.1275/2008 (Annex II) and COMMISSION REGULATION (EU) No 801/2013		□Pass □Fail □Not applicable	
Navigation Mode APD	36-40	**APD to trigger within 60 minutes to the power limits for Standby**	N/A	□Pass □Fail □Not applicable	
Active Gaming APD	41-48	**APD to trigger within 60 minutes to the power limits for Standby**	N/A	□Pass □Fail □Not applicable	
Disk-Based Media Playback APD	49-56	**APD to trigger within 4 hours to the power limits for Standby**	N/A	□Pass □Fail □Not applicable	
Media Streaming Playback APD (name own player in comments)	57-64	**APD to trigger within 4 hours to the power limits for Standby**	N/A	□Pass □Fail □Not applicable	

Unit sales

Sales information provided from independent third party source:

- [Provide reference]

If more than one model of each console is sold within any month, and public data on the proportion of sales between models is not available, the sales per model must be estimated based on an assumed equal split of sales per day between each model.[4]

Month	**Reported sales**
January	
February	
March	
April	
May	
June	
July	
August	
September	
October	
November	
December	

Non-energy commitments

[4] As an example: if hypothetical models 'A' and 'B' were both on sale throughout July in a given year, and model 'C' launched on 15th July, and 3,100 consoles were sold in July in total (an average of 100 units per day):

- Model A estimated sales = (14 * 100 / 2) + (17 * 100 / 3) = 700 + 567 = 1,267 units
- Model B estimated sales = (14 * 100 / 2) + (17 * 100 / 3) = 700 + 567 = 1,267 units
- Model C estimated sales = (17 * 100 / 3) = 567 units

This console complies with the following resource efficiency and recycling requirements:

- A refurbishment or out of warrantee repair service for each games console is available, and supported by the following requirements:
    - Technical documentation is available to authorised repair centres to enable repair or refurbishment
    - Spare parts are available to authorised repair or refurbishment centres
    - To improve both recycling and reuse at end-of-life, maintenance and refurbishment is possible by non-destructive disassembly
- To improve recycling at end-of-life, console plastics parts >25g are marked indicating their material composition (using ISO conforming marks), with the following exceptions:
    - The part has <1cm^2 level surface available for marking
    - The performance or function of a part is compromised e.g. buttons with tactile surface, plastic lenses, or display screens.
    - External transparent parts
    - Marking is not technically possible due to the specific production method of the plastics used in the part e.g. extrusion moulding.

[DELETE IF APPROPRIATE] <This console does not meet the following requirements:>

- <LIST>

Further information:

The following information is included in the instructions for use (with instructions either provided with the console itself, onscreen or hardcopy, or online):

Information on the energy-saving potential of power management:	Automatic power-down could help save energy by reducing the amount of time the Games Console remains on, but not in use.
Default low power mode when the Games Console is powered-down:	☐ Standby ☐ Networked standby
Default auto power-down time settings:	The Games Console will power down after the following periods of inactivity: Media playback: [__] minutes Other modes: [__] minutes
Information on how to change time settings for auto power-down:	<Insert information here>
Reference to further information on other available low power modes (where applicable):	<Insert information here>
Console power consumption in active modes (based on a test sample):	Navigation: [__] W DVD playback: [__] W1 Blu-ray playback: [__] W2 1080p streaming: [__] W3 Active gameplay: [__] W4 Notes: Dated tested XX/XX/XX 1. Media tested: [_____] 2. Media tested: [_____] 3. Media tested: [_____], using [_____] media player. 4. Average of three proprietary games: [_____], [_____], & [_____]
End-of-life processing, refurbishment, and out-of-warrantee services available:	<Insert information here>

PRODUCT COMPLIANCE REPORT: ULTRA HIGH DEFINITION GAMES CONSOLES

Signatory:

Model name(s)	
Model Number(s)	

Date submitted:

Top 3 game titles tested from preceding year:

1. [Game 1]
2. [Game 2]
3. [Game 3]

Media titles tested:

DVD: [Title] / [Not applicable]
Blu-ray: [Title] / [Not applicable]
Streaming HD: [Title] / [Not applicable]

SRI Requirements:

Title	Procedure Nr.	Power Caps	Measured power consumption (W)	Test result	Comment
Navigation Mode Testing	13-15	Tier 1: 90W Tier 3: 70W		□Pass □Fail □Not applicable	
Media Playback DVD	16-19	Tier 2: 90W Tier 4: 70W		□Pass □Fail □Not applicable	
Media Playback Blu-ray Disc	20-23	Tier 2: 90W Tier 4: 70W		□Pass □Fail □Not applicable	
Streaming HD (name own player in comments)	24-27	Tier 2: 90W Tier 4: 70W		□Pass □Fail □Not applicable	
Off/Standby/Networked Standby after pressing the off button	28-31	**Power limits for Standby and Networked standby as defined in:** COMMISSION Regulation (EU) No.1275/2008 (Annex II) and COMMISSION REGULATION (EU) No		□Pass □Fail □Not applicable □Pass □Fail □Not applicable	

		801/2013			
Off/Standby/Networked Standby when switched off from controller	32-35	**Power limits for Standby and Networked standby as defined in:** COMMISSION Regulation (EU) No.1275/2008 (Annex II) and COMMISSION REGULATION (EU) No 801/2013		□Pass □Fail □Not applicable	
Navigation Mode APD	36-40	**APD to trigger within 60 minutes to the power limits for Standby**	N/A	□Pass □Fail □Not applicable	
Active Gaming APD	41-48	**APD to trigger within 60 minutes to the power limits for Standby**	N/A	□Pass □Fail □Not applicable	
Disk-Based Media Playback APD	49-56	**APD to trigger within 4 hours to the power limits for Standby and Networked Standby**	N/A	□Pass □Fail □Not applicable	

Media Streaming Playback APD (name own player in comments)	57-64	**APD to trigger within 4 hours to the power limits for Standby and Networked Standby**	N/A	□Pass □Fail □Not applicable	

Unit sales

Sales information provided from independent third party source:

- [Provide reference]

If more than one model of each console is sold within any month, and public data on the proportion of sales between models is not available, the sales per model must be estimated based on an assumed equal split of sales per day between each model.[5]

Month	**Reported sales**
January	
February	
March	
April	
May	
June	
July	
August	
September	
October	
November	
December	

[5] As an example: if hypothetical models 'A' and 'B' were both on sale throughout July in a given year, and model 'C' launched on 15th July, and 3,100 consoles were sold in July in total (an average of 100 units per day):

- Model A estimated sales = (14 * 100 / 2) + (17 * 100 / 3) = 700 + 567 = 1,267 units
- Model B estimated sales = (14 * 100 / 2) + (17 * 100 / 3) = 700 + 567 = 1,267 units
- Model C estimated sales = (17 * 100 / 3) = 567 units

Non-energy commitments

This console complies with the following resource efficiency and recycling requirements:

- A refurbishment or out of warrantee repair service for each games console is available, and supported by the following requirements:
    - Technical documentation is available to authorised repair centres to enable repair or refurbishment
    - Spare parts are available to authorised repair or refurbishment centres
    - To improve both recycling and reuse at end-of-life, maintenance and refurbishment is possible by non-destructive disassembly
- To improve recycling at end-of-life, console plastics parts >25g are marked indicating their material composition (using ISO conforming marks), with the following exceptions:
    - The part has <1cm^2 level surface available for marking
    - The performance or function of a part is compromised e.g. buttons with tactile surface, plastic lenses, or display screens.
    - External transparent parts
    - Marking is not technically possible due to the specific production method of the plastics used in the part e.g. extrusion moulding.

[DELETE IF APPROPRIATE] <This console does not meet the following requirements:>

- <LIST>

Further information:

The following information is included in the instructions for use (with instructions either provided with the console itself, onscreen or hardcopy, or online):

Information on the energy-saving potential of power management:	Automatic power-down could help save energy by reducing the amount of time the Games Console remains on, but not in use.
Default low power mode when the Games Console is powered-down:	□ Standby □ Networked standby
Default auto power-down time settings:	The Games Console will power down after the following periods of inactivity: Media playback: [__] minutes Other modes: [__] minutes
Information on how to change time settings for auto power-down:	<Insert information here>
Reference to further information on other available low power modes (where applicable):	<Insert information here>
Console power consumption in active modes (based on a test sample)	Navigation: [__] W DVD playback: [__] W1 Blu-ray playback: [__] W2 1080p streaming: [__] W3 Active gameplay: [__] W4 Notes: Date tested XX/XX/XX 1. Media tested: [_____] 2. Media tested: [_____] 3. Media tested: [_____], using [_____] media player. 4. Average of three proprietary games: [_____], [_____], & [_____]
End-of-life processing, refurbishment, and out-of-warrantee services available:	<Insert information here>

Annex C - Method of Data Collection and Processing by Independent Inspector

Product reporting template

The data to be reported must conform with the Product Compliance Reports for High Definition and Ultra High Definition Games Consoles in Annex B.

Data collection and processing

The deadline for reporting by the Signatories to the Independent Inspector is 28 February (see Section 5.3) following each Reporting Period. The Report shall be submitted electronically via email by the Signatories to the Independent Inspector.

Following the data collection and initial processing, the Independent Inspector may request additional information from any Signatory. Justifications for requiring further information may include:

- The Reporting form contains missing information;
- Submitted information requires clarification.

Signatories shall use reasonable endeavours to answer any questions from the Independent Inspector within one week of receiving the request. Such a request should be made in writing, via letter or email.

The Annual Compliance Report

The Annual Compliance Report shall reflect solely the information sent by the Signatories. The precise format of the Annual Compliance Report shall be determined by the Signatories of the SRI in consultation with the Independent Inspector and shall be the same for all Signatories.

The final Annual Compliance Report shall be published no later than 31 May (Section 5.3) of the year following the Reporting Period.

Audits

The Independent Inspector may carry out an audit of a Signatory by request of the Commission if any results of its Annual Compliance Report are questioned by the European Commission in order to verify such results, or if any Signatory reports that any of their products do not comply with the requirements of this SRI. After receiving such request, the Independent Inspector should decide on the verification activities to be undertaken. This situation may occur, for example, if a Member State who, at its own cost and upon carrying out its own compliance testing (following the procedure set forth in Annexes A) of a Games Console unit, concludes that a particular model consumes more power than specified in the Independent Inspector's Annual Compliance Report. Evidence of the results and test procedure used are required to ensure that the differences are not attributable to

discrepancies in testing methodology. Test results which are inconsistent with the test procedure set forth in Annex A shall not be accepted.

The European Commission should notify the Independent Inspector as well as the relevant Signatory. If the discrepancy cannot be resolved by discussions between these parties and within two months of the original notice from the Commission to the Signatory, the Independent Inspector may decide to conduct an audit of the Signatory's Games Console[6] in question. This audit will consist of performing compliance measurements following the test procedure in Annex A. Testing can be carried out at the Signatory's site by the Independent Inspector, or at an independent 3rd party testing facility. In either case the Independent Inspector should randomly select the required samples of products from the Signatory being audited. The Signatory may be present at such audit. The cost of the audit shall be borne by the manufacturer of the product in question.

Independent Inspector must send a draft inspection report to the Signatory in question within 30 days of the audit, after which the Signatory has two weeks to comment. Independent Inspector must then modify the report accordingly and within two weeks, and submit to the Steering Committee.

[6] Using the relevant make and model.

Annex D – Membership Form

Industry Self-Regulatory Initiative to further improve the energy efficiency of Games Consoles

Name of Signatory (Company Name): ……..

signs this Self-Regulatory Initiative and commits itself to the overall objective of improving the energy efficiency of Games Consoles as set out herein.

For each Reporting Period, the Signatory agrees to provide information on the power consumption of each model of Games Console within scope and in accordance with the requirements of the Self-Regulatory Initiative.

For the Signatory:

Date: ……..

Name of Authorised Representative: ……

Title of Authorised Representative: ……

Address of Signatory: ……
……
……

Email: ……

Signature: ……

Please send a duly signed and completed Membership Form to:

The Self-Regulatory Initiative Steering Committee (once established)
[Address for the Legal Entity or Administrative body hired by the Steering Committee]
Belgium

And/or return electronically to:
[Email address for the Administrative body/responsible]
A copy of this signed form will be forwarded to the European Commission without delay.

Annex E - Compliance with the Self-Regulation Criteria (Annex VIII)

1. Openness of participation

This SRI has been concluded by the 3 major manufacturers of Games Consoles currently active on the global market. Any manufacturer of Games Consoles falling within the scope of this agreement may join the SRI as a Signatory, subject to approval by the Steering Committee and to full compliance with the provisions herein.

2. Added value

The annex to this proposal demonstrates the value added achieved by this SRI over the business as usual case. Industry estimates, based on publically available data, suggest that over 1 TWh/yr will be saved by 2020 due to compliance with this agreement.

3. Representativeness

In aggregate, the Signatories to this SRI form more than 70% of the market for Games Consoles in the EU.

4. Quantified and staged objectives

The SRI is structured around quantified power cap limits for key operational modes in 2 staged tiers, as well as detailed APD requirements to be implemented from the date of adoption of the agreement. The SRI also includes a full test methodology in Annex A to measure the levels of energy performance achieved.

5. Involvement of civil society

Throughout the development process of this SRI, the Signatories met with Member States representatives, NGOs and other interested industry associations to gather input which was taken on board in the SRI process. To publicize and disseminate information about this SRI, a dedicated website will be established. A current version of the SRI, information relating to its Steering Committee discussions, manufacturer compliance reports covering each product within scope as well as the Annual Compliance Report of the Independent Inspector can be accessed via this website. During the operation of the SRI, stakeholders, including Member State representatives, industry, environmental NGOs and consumers' associations may send comments about the implementation of the SRI through the website via a dedicated email contact address to the SRI or to the individual Signatories of the SRI.

6. Monitoring and reporting

A detailed monitoring and reporting system and governance structure that defines the responsibilities of the Signatories, the Administrator and the Independent Inspector are outlined in Chapter 5 of the SRI. The Commission is invited to participate in meetings of the Steering Committee as an observer and to monitor the achievement of the objectives. Compliance can be assessed by any interested party from the Independent Inspector's Annual Compliance Report and Product Compliance Reports published on the SRI website.

7. Cost-effectiveness of administering a Self-Regulatory Initiative

This SRI represents the most efficient and cost-effective way of achieving its stated objectives. Since the cost of administering this SRI is fully assumed and shared by all Signatories, there is a built-in incentive for each Signatory to keep the administrative costs low and thereby avoid that they become burdensome.

8. Sustainability

This SRI responds to the policy objectives of EU Directive 2009/125/EC by establishing an integrated approach that sets limits on Games Console energy consumption to deliver significant, long-term energy and cost savings that, in turn, serves the aims of environmental protection and the interests of consumers. It is also a balanced approach that takes into account the need to allow for continued development and innovation in the games consoles industry.

9. Incentive compatibility

This SRI complements other factors which also favour energy efficient Games Console design such as market demand, user experience, technological development and other parallel energy efficiency debates around the world.

Annex F – Estimated electricity savings

Within the European Union it is estimated that the SRI for Games Consoles will result in electricity savings of 1.1 TWh in 2020 for Ultra High Definition capable Xbox One and PlayStation®4 Games Consoles. This is equal to the electricity savings expected through compliance with Regulation 801/2013 for standby and networked standby modes. Energy savings are achieved by adopting specific rules for power management of consoles, and also power caps for some modes that lead to the adoption of best available technologies (for example, system on a chip, power scaling, efficient power supplies, and die-shrink). These technologies result in a reduction of power consumption of consoles across *all* modes, estimated at 20% reduction in energy use compared to business as usual throughout the lifetime of Ultra High Definition Consoles.

Further electricity savings are expected from additional efficiency improvements made by Games Console manufacturers. These additional improvements are not included in the SRI as they cannot be harmonised across all Games Consoles due to the variability in hardware specifications and performance, and the functions and features available on each device. The additional efficiency improvements include Suspend to RAM and early compliance with the networked standby requirements set out in Regulation 801/2013.

The estimated electricity savings expected for Ultra HD capable consoles are summarised in the table below.

Estimated EU electricity saving for Ultra High Definition Games Consoles (TWh)

Year	Regulation 801/2013	SRI	Additional
2013	0.1	0.1	0.1
2014	0.1	0.3	0.4
2015	0.3	0.5	0.5
2016	0.6	0.8	0.6
2017	0.8	0.9	0.6
2018	1.0	1.0	0.5
2019	1.1	1.2	0.3
2020	1.1	1.1	0.2
TOTAL	**5.0**	**6.0**	**3.4**

The basis of these savings and the effectiveness of efficiency requirements are derived from a number of detailed studies. For a comprehensive analysis of the available literature relevant to this proposal (covering 270 publications), please refer to Webb (2014):

- EU Commission. 2014. Lot 3 Sound and Imaging Equipment Impact Assessment for Games Consoles.

- Microsoft, Nintendo, Sony. 2014. *Self-Regulatory Initiative to further improve the energy efficiency of games consoles*. Presentation to the Eco-design Consultation Forum on Voluntary Agreements, June 12, 2014.
- Webb, A. 2014. *Evaluating Games Console Electricity Use: Technologies and Policy Options to Improve Energy Efficiency*. Doctoral Thesis submitted to the University of Surrey, Guildford, UK.
- VGChartz. 2014. Console sales data. <http://www.vgchartz.com/>. Accessed November 2014.
- A. Webb, K. Mayers, C. France, J. Koomey. Estimating the energy use of high definition games consoles. *Energy Policy*. Vol. 61, Oct. 2013, pp 1412–1421