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Subject: Applicability of the regulation (EU) 2019/2021 of 1 October 2019 laying down ecodesign requirements for electronic displays pursuant to Directive 2009/125/EC to electronic displays as part of video door entry systems and home and building electronic systems (HBES/BACS).

Regulation analysis: Scope, Definitions and Maintenance and Testing requirements

In order to establish if regulation (EU) 2019/2021 applies to a product, and if so, to what extent, the following points need to be considered.

1. **'electronic display'** means display screen and associated electronics that, as its primary function, displays visual information from wired or wireless sources;

This means that for a product to be called an "electronic display", two conditions apply:

Condition 1: the product needs to have a display screen and associated electronics

Condition 2: the product needs to have a primary function of displaying visual information

The meaning of "primary function" also indicated by IEC International Electrotechnical Vocabulary as "[function providing the intended purpose](#)" can be interpreted as follows: if the primary function cannot be used, the product becomes unusable. For example, if a car cannot drive, the car becomes useless; contrary to this, if the built-in speakers of a laptop stop working, working with the laptop is still possible.

Both conditions are interlinked because the display screen + associated electronics need to be directly linked to fulfilling the primary function of the product.

The fact needs to be established whether or not an electronic display is a component or sub-assembly. The omnibus amendment under approval namely states that the regulation shall not apply to: electronic displays that are components or sub-assemblies as defined in point 2 of Article 2 of Directive 2009/125/EC.

2. **'Components and sub-assemblies'** means parts intended to be incorporated into products which are not placed on the market and/or put into service as individual parts for end-users or the environmental performance of which cannot be assessed independently;

This means that even if a product in itself meets the definition of an electronic display, the product can be exempted if the product is incorporated into another product and is not placed on the market/put into service as an individual part for the end-user.

Exemption: the electronic display is intended to be incorporated into a product and is not placed on the market as an individual part for end-users.

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Reading further definitions of the Regulation (EU) 2019/2021 shows:

3. **‘television’** means an electronic display designed primarily for the display and reception of audiovisual signals and which consists of an electronic display and one or more tuners/receivers;

4. **‘monitor’ or ‘computer monitor’ or ‘computer display’** means an electronic display intended for one person for close viewing such as in a desk-based environment;

5. **‘control panel’** means an electronic display whose main function is to display images associated with product operational status; it may provide user interaction by touch or other means to control the product operation. It may be integrated into products or specifically designed and marketed to be used exclusively with the product;

Observation 1: We observe that electronic displays are further classified in function of a deeper specification of the primary function.

From the proposed amendments to Regulation (EU) 2019/2021, we read that:

6. Article (2)(c)(ii): “(1) manufacturers, importers or authorised representatives of electronic displays shall make available to professional repairers at least the following spare parts: internal power supply, connectors to connect external equipment (cable, antenna, USB, DVD and Blue-Ray), capacitors above 400 microfarads, non standardised batteries and accumulators, DVD/Blue-Ray module if applicable and HD/SSD module if applicable for a minimum period of seven years after placing the last unit of the model on the market;”

7. Article (3)(b): “The 10-minute Dynamic Broadcast video sequence described in existing relevant standards shall be replaced with an updated 10-minute Dynamic Broadcast video sequence. This is available for download at: [\[link to be updated\]](#). Two files are available, in SD and HD. They are respectively titled “SD Dynamic Video Power.mp4”, and “HD Dynamic Video Power.mp4”. [...] For repeatability of measurement purposes, the file storage and playback system should be detailed as well as the type of digital interface with the UUT (e.g. HDMI, DVI etc.) The power measurement P measured is an average value from the full 10-minute length of the test pattern, taken with ABC disabled.”

From the Regulation (EU) 2019/2021, we read that:

8. Annex II, Section D, 5.(a)(3): manufacturers shall ensure that these spare parts can be replaced with the use of commonly available tools and without permanent damage to the appliance;

Observation 2: The intended capacitor type has a capacity above 400 microfarads

Observation 3: Testing energy efficiency of electronic displays involves playing media which can be downloaded or uploaded on/to the electronic display.

Observation 4: As far as the reference to “commonly available tools”, CECAPI consider that the series EN 45554 fully address this topic.

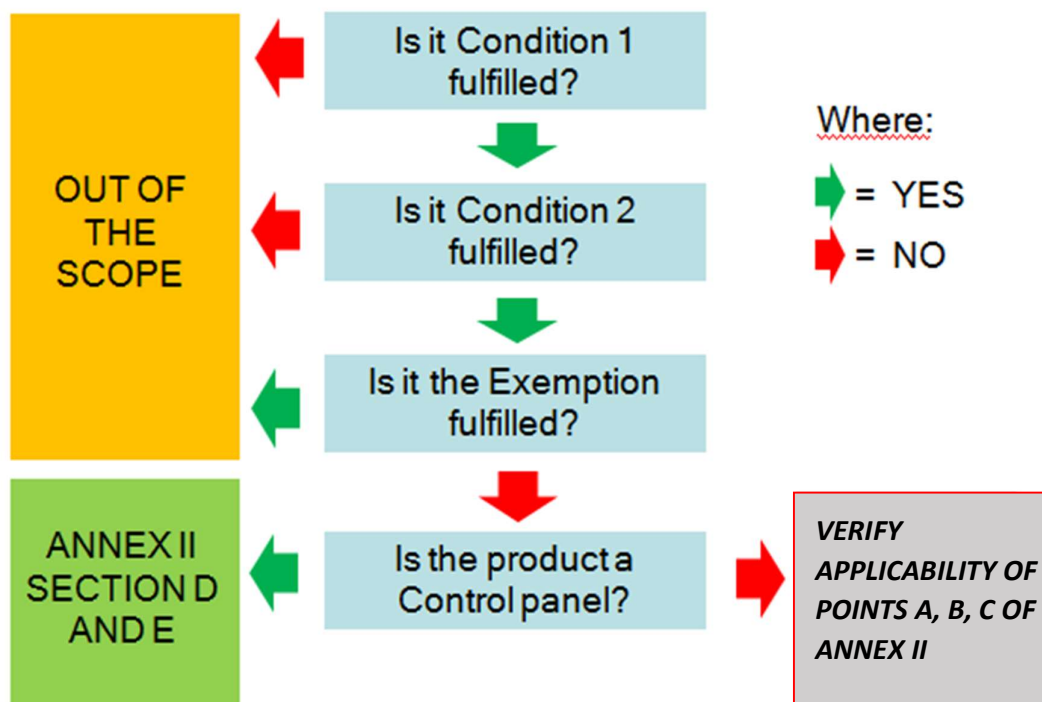
Observation 5: From Annex II, Section D, Material Efficiency Requirements, point 3, a ‘Cadmium free’ logo shall be used if concentration values of Cadmium (Cd) by weight in any homogeneous material part of the display do not exceed 0,01 % as defined in Directive 2011/65/EU. It is not clear where this logo shall be affixed to the display.

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Application of the conditions and observations on several products,
including door entry systems and home and building electronic systems
(HBES/BACS)

Scope decision tree

On the basis of the analysis made, the below decision tree helps to determine whether or not a product in the scope of Regulation (EU) 2019/2021, and if the relevant requirements are totally or partially applicable. It is especially conceived to analyze door entry systems and home and building electronic systems (HBES/BACS):



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Example 1: TV-set or computer monitor



Figure 1 – Example of electronic displays

The product shown in Figure 1 is an electronic display because conditions 1 and 2 apply:

Condition 1: It has a display screen and associated electronics

Condition 2: If the display is broken and cannot display visual information, the product becomes useless for the end-user and therefore, the primary function is displaying visual information

The product shown in Figure 1 is not intended to be incorporated into other products and is placed on the market as individual parts for **end-users** and therefore the **Exemption** is not met.

Conclusion: The final product is in itself an electronic display and is not exempted from regulation (EU)2019/2021.

Example 2: Indoor unit of a door entry system with additional control buttons



Figure 2 – example of product having a screen area bigger than 100 cm² which is not an electronic display

The product shown in Figure 2 is not an electronic display because:

Condition 1 does not apply as the product is a videophone having many functional components supporting the execution of the primary function.

Condition 2 does not apply because the main function is not displaying visual information. The functions of this products are:

- opening a door
- switching on or off light(s)
- making internet call
- providing remote conversation to identify the person asking to enter the building
- activating and deactivating the ring signal
- displaying the face of person asking to enter the building, to better support the access control purposes

The product shown in Figure 2 includes an electronic display which is incorporated into the final product (videophone) but is not placed on the market and/or put into service as individual part for **end-users** and therefore the **Exemption** is met.

Conclusion: the product in Figure 2 is not an electronic display in itself and its contained electronic display is exempted from Regulation (EU) 2019/2021.

Example 3: Indoor unit of a door entry system without additional control buttons

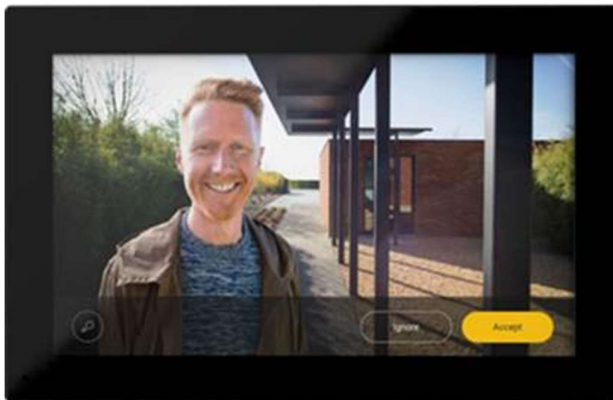


Figure 3 – example of control panel having a screen area bigger than 100 cm²

The product shown in Figure 3 is an electronic display because:

Condition 1 applies because the product contains an electronic display and associated electronics.

Condition 2 applies because both the display and the associated electronics support the function of displaying visual information.

For Door Entry Systems (DES) products, the main functions are:

- opening a door
- switching on or off light(s)
- making internet call
- providing remote conversation to identify the person asking to enter the building
- activating and deactivating the ring signal
- displaying the face of person asking to enter the building, to better support the access control purposes

The product shown in Figure 3 is an electronic display which is not incorporated into another product and it is placed on the market as individual part for **end-users** and therefore the **Exemption** is not met.

Resuming **Observation 1**, we understand that the product shown Figure 3 fulfills the **definition of a control panel**: the product of which the operation needs to be controlled is the door entry system (DES) and the operation to be controlled are the main primary functions. This display is designed and marketed to be used exclusively with such DES. It cannot display information coming from another source (wired or wireless). In fact, a door entry system is a system comprising a means to operate the door (in this case a touch-enabled display).

Conclusion: the product shown in Figure 3 is an electronic display and more specifically a **Control Panel**. This means that only the requirements of Sections D and E of Annex II of Regulation (EU) 2019/2021 apply.

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Example 4: Home and Building electronic systems (HBES/BACS) control displays



Figure 4 – example of control panels having a screen area bigger than 100 cm²

The product shown in Figure 4 is an electronic display because:

Condition 1 applies because the product contains an electronic display and associated electronics.

Condition 2 applies because both the display and the associated electronics support the function of displaying visual information.

For Home and Building electronic systems (HBES/BACS) control displays, the main function is to control the operation of Home and Building automation products (for example sensors, actuators...).

The product shown in Figure 4 is an electronic display which is not incorporated into another product and it is placed on the market as individual part for **end-users** and therefore the **Exemption** is not met.

Resuming **Observation 1**, we understand that the product shown Figure 4 fulfills the **definition of a control panel**: the product of which the operation needs to be controlled is the Home and Building automation system. This display is designed and marketed to be used exclusively with such HBES/BACS.

Conclusion: the product shown in Figure 4 is an electronic display and more specifically a **Control Panel**. This means that only the requirements of Sections D and E of Annex II of Regulation (EU) 2019/2021 apply.

Additional observation

From **Observation 2** it is clear that the capacitors incorporated in electronic displays which are part of DES or HBES/BACS, are not covered by the proposed amendments on availability of spare parts, since the capacitors of the above mentioned displays are far less than 400 microfarads.

From **Observation 3** it is understood that testing the energy efficiency of electronic displays includes playing media content which should be uploaded or downloaded to the electronic display. In general, displays intended for use in a DES or HBES/BACS are not foreseen to be able to display media content – other than the content generated from the DES or HBES/BACS itself. Therefore, it is understood that displays which are part of a DES or HBES/BACS are exempted of the energy efficiency requirements of Regulation (EU) 2019/2021.

From **Observation 4** As far as the reference to “commonly available tools”, CECAPI consider that the series EN 45554 fully address this topic.

General conclusion

In general, CECAPI concludes that

1. Electronic displays which are part of a DES and HBES/BACS are exempted of the energy efficiency requirements of this regulation.
2. Indoor units of a door entry system (DES) with additional control buttons shall not be considered as electronic displays as intended within the scope of this regulation.
3. Indoor units of a DES without additional control buttons can be considered as control panels and therefore, only sections D and E of annex II of the Regulation apply.
4. HBES/BACS control displays can be considered as control panels and therefore, only sections D and E of annex II of the Regulation apply.
5. The Cadmium free logo shall at least be firmly attached on the display panel or moulded in a position clearly visible to workers.