Brussels, 29 November 2019

# Water pumps:
# Position on the draft proposal to revise Ecodesign regulation 547/2012

Following the Consultation Forum meeting which took place on 29 October 2019 to discuss the revision of the Ecodesign Regulation on Water pumps, we call upon the European Commission to take into consideration the following remarks:

## Extend the scope to include self-priming, swimming pool and wastewater pumps

We **welcome the inclusion of horizontal multistage pumps and booster sets in the scope** of the revised regulation with the aim to close gaps and foster further energy savings.

However, the current proposal perpetuates the exclusion of self-priming water pumps from the performance requirements which we believe is a missed opportunity. What is more, the review study acknowledged difficulties in reaching a harmonised definition for self-priming pumps and deemed that sufficient not to analyse these products further[1]. **The exclusion of self-priming water pumps and the lack of a definition and justification for this exclusion creates a potential loophole**, since some of the currently covered water pumps can also have self-priming functions. Thus we request full clarity on the justifications to sustain such exclusion, and in the absence of those, to extend the scope to also have them regulated as these products generally perform less efficiently.

Similarly, we call on the European Commission to stop postponing and finally **move forward with regulating swimming pool and wastewater pumps**. While we acknowledge the underlying differences between these product types and the pumps currently in scope, the review study estimated that these two pump types account for a significant share of the total potential savings in 2030 from implementing the extended product approach in all the product group which we believe should not be neglected. Should expanding the applicability of performance requirements in Regulation No 547/2012 not be feasible for these products, alternatively, **information requirements should be set** to allow gathering information that will form a good basis for the future review of the regulation.

## In favour of the additional Extended Product Approach

We welcome the general aim to account additionally for the energy losses beyond the pump, provided that all the elements considered in the "water pump unit" (i.e. pump, motor, VSD (if any)) comply with the requirements as set in their respective primary Ecodesign Regulations. Hence, we are in favour of an **additional EEI for the pump units while MEI are kept for all the elements**.

- In our view, the unquestionable way forward on the extended product approach (EPA) is to ensure MEPS for the pump (MEI), the motor (IE code IE3) and the converter (IE code IE2) as well as to introduce, in parallel, an EEI for the pump system that can harvest the benefits of the system integration and the variable speed operation.

- In principle, we also **support the idea of an Energy Label for the pump units** as proposed by The Netherlands during the meeting. Such a label could promote units with VSD and facilitate

[1] Viegand Maagøe and Van Holsteijn en Kemna B.V. Ecodesign pump review – Extended report. December 2018. Section 8 p. 127

the work of the market surveillance authorities as all the product information would be available to them for verification purposes through the EPREL database.

## More ambitious and earlier energy efficiency requirements

### Stricter MEIs for water pumps

Regrettably, the revised ecodesign requirements are delayed until 2022 while the current working document maintains the efficiency levels - MEI - for fixed speed and variable speed water pumps unchanged, as they have been decided in 2012 and enforced since 2015, meaning that **no improvement will be implemented for the already regulated pumps**. We believe that keeping the minimum efficiency requirements for water pumps at MEI=0.4 is unambitious. At the stage of a regulatory review, it is key to set ambitious requirements that follow the technological progress in pump design, manufacturing and operational tools.

We therefore recommend to set **two tiers for the implementation of the ecodesign requirements on the energy performance of water pumps** as follows:

- Tier 1 in 2020: MEI ≥ 0.70 (benchmark in the current regulation),
- Tier 2 in 2022: constant flow pumps MEI ≥ 0.90.

Additionally, assuming that the implementation of the current ecodesign requirements have driven the market into more efficient water pumps, it is our opinion that the lack of ambition by setting the same benchmark as in the current regulation sends the wrong signal to the market. We therefore suggest that the indicative benchmark that defines the best available technology on the market at the time of the adoption of the revised regulation is revisited accordingly.

### Both EEIv and EEIc are necessary

We reiterate our support for defining an EEI for the pump units, while keeping the MEI for all the elements. However, we believe that a distinction for variable speed (EEIv) and constant speed (EEIc) is necessary because the different standard operation profiles need to have different levels of requirements.

Regarding the recommendation to use VSD on ALL water pumps in order to benefit also in constant flow by avoiding lower efficiencies from trimmed impellers, we question if it is realistic in the current market scenario - according to VHK only 50% of the pump systems benefit from a VSD - and hence if it is economically justifiable. While we agree that the use of VSD is necessary to save electricity in motor systems operating with variable load, the convenience of using a VSD should be closely linked to the different applications. It is our opinion that material efficiency aspects and losses associated with the use of additional devices should be taken into consideration.

Unfortunately, it is not possible for us at this time to evaluate the ambition of the required EEIv < 0.62 because no recent market data are available from Europump or VHK. Physical sample tests are necessary for the verification of the calculation, the test method and the level of the MEPS proposed. We recommend to set **two tiers for the implementation of the ecodesign requirements on the energy performance of water pump units** as follows:

- Tier 1 in 2020:
  - constant flow pumps EEIc ≤ 0.xx (to be determined)
  - variable flow pump units: EEIv ≤ 0.62
- Tier 2 in 2022:
  - constant flow pumps EEIc ≤ 0.96
  - variable flow pump units: EEIv ≤ 0.57.

## Limit the exemptions

Exemptions in pump size (EEI only for pumps < 45 kW), type (EEI only for ESOB, ESCC and ESCCi) and fluid type (clean water, drinking water, waste water) should be kept to a minimum. Precise description and declaration of exempt pumps are necessary.

## Include resource efficiency aspects now

Circular economy, resource savings and savings on embedded energy and $CO_2$ are clear priorities for the EU. They have been assessed necessary to reach our climate goals as set in the EU Long-term Decarbonisation Strategy for 2050. We therefore call on the European Commission and Member States to take ambitious action through the ecodesign policy.

Restraining such key aspects into the review clause is certainly not ambitious enough. Furthermore, the review study clearly stated that pump equipment will need repair and maintenance during its lifetime and that some of the largest pump manufacturers provide onsite repair and workshop repair services already today. Therefore, we urgently call for **resource efficiency requirements to be included into the revised regulation for its entry into force in 2020**. At the very minimum, the resource efficiency requirements for water pumps shall reflect the provisions included in the Ecodesign Regulations adopted this year for other product groups.

## Set more precise information requirements

### Include information requirement on rare earth elements

We invite the European Commission to take a further look at the specific case of Rare Earth material used in Permanent Magnet motors. Permanent Magnet motors can contain rare earth elements which have been identified as critical materials in the medium term based on supply risk, demand growth and recycling restrictions[2]. Devices with rare earth magnets are quite hard to identify as such without having very specific technical know-how or without conducting quite intensive testing/dismantling of devices[3]. Thus, a **mandatory and standardised marking of products containing rare earth magnets** above a certain minimum weight (e.g. > 10 g) can significantly facilitate reuse and future recycling practices. It is believed that a marking giving information on the presence of rare earth magnets as well as information on the applied type (e.g. SmCo, FeNdB) can positively influence the establishment of a European circular economy for rare earth elements.

▷ To introduce an information requirement on the presence of rare earth material in magnets, their localisation, as well as their extraction process allowing safe and cost-effective reuse or recycling.

▷ To consider specific requirements for how these permanent magnets can be integrated in the motor to maximise cost effectiveness of reuse and recovery process (e.g. no glue and no welding hampering the extraction/recovery of rare earths elements; or maximum amount of non- destructive disassembly time to foster the reuse of the magnets rather than the mere recovery of rare earths).

### Include QR code close to the rating plate

We welcome and agree with the proposal to require product information on a freely accessible website, stating whether the product is in the scope, requiring a written explanation for products out of scope, and assuming that products are in the scope if no such explanation is published.

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[2] Aalborg University, Addressing resource efficiency through the Ecodesign Directive, March 2014 (p. 226)
[3] Source: Preparatory Study to establish the Ecodesign Working Plan 2015- 2017 implementing Directive 2009/125/EC, Task 2: Supplementary Report "Identification or resource-relevant product groups and horizontal issues", Andreas Manhart, Kathrin Graulich (Oeko-Institut), 15th September 2014 (Chapter 7.1)

Additionally, as the rating plate is usually too small and has only reduced space for detailed product and system information, we propose that the **rating plate of the pump shall include a QR-code** (like in the upcoming IEC 60034-1: ed. 14) **that links directly to the respective technical documents** on the manufacturer's website.

### Publish the necessary harmonised standards to support the regulation

To our understanding, although the requirements in the regulation have been in place since 2013, **there are yet no harmonised standards published in the OJEU to support regulation (EU) No 547/2012, but only transitional methods**. We call on the European Commission to urgently make progress on this matter.

At the same time, we recommend that the European Commission issues an **early standardisation request to develop the necessary test method and metrics** should the **EPA approach** be included in the revised regulation.

### Need to overcome challenges for market surveillance

We agree to market surveillance of industrial products covered by the Ecodesign Directive being particularly challenging due to several reasons, including the fact that they are mostly sold business-to-business, and therefore largely "invisible" to Market Surveillance Authorities (MSAs). With ecodesign requirements in place, the performance of large industrial products' is no longer just a private contractual matter between the supplier and the purchaser. We believe that MSAs must have all the tools needed to undertake the verification procedures of such products and hence would like to refer to the policy recommendations derived from the H2020 INTAS[4] project, which include the following, among others:

- Establish a mandatory notification to MSAs to ensure they are made aware of a product being placed on the market or put into service.
- Enable the conditions for MSAs to conduct market surveillance actions at manufacturer's premises (or in-situ as a last resort).

END

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[4] http://www.intas-testing.eu/project-documents