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Our associations represent industrial sectors regulated under the Industrial Emissions Directive (IED) and support the Commission's Green Deal objective to review EU measures to address pollution from large industrial installations, look at the sectoral scope of the legislation and how to make it fully consistent with climate policies.

The disruptive breakthrough technologies necessary to significantly contribute to achieving the climate-neutrality objective will require time to be developed, up scaled and commercialised. On one hand, various GHG abatement options are not available to the same extent across sectors and regions, on the other they are not directly under the control of the operators of IED installations, who to large extent remain dependent on other sectors, notably the energy one.

Mindful of the above considerations, the undersigned sectors have analysed the various policy options considered in context of the TSS and came to the following conclusions:

We support full coherency between policy measures addressing various environmental issues, in particular with regards to the IED, that is the backbone of the environmental legislation applicable to our industrial installations. In the spirit of better regulation principles, amongst others, we reject the option to regulate GHG emissions under an IED permitting regime where those GHG are already regulated under the ETS.

We support:

- the revision of IED (Art 15(5)) to facilitate development and testing of emerging techniques

¹ IED revision consultation process Targeted Stakeholders Survey

- the revision of IED Article 21(3) to provide more than 4 years for deep transformation of industrial sectors, where BAT conclusions have recognised innovative techniques being BAT and require dramatic changes across a sector

We conditionally support:

- the upscale of the Industrial Emissions Innovation Observatory to monitor the Technology Readiness Level (TRL) of emerging and breakthrough technologies and the fact that the recognition by the Observatory of an advanced TRL would trigger BREF reviews

We do not support:

- the deletion of the provision that exempts plants from setting GHG ELVs and energy efficiency requirements in permit conditions if they are regulated by the EU ETS (IED Article 9)
- the identification of direct and indirect GHG as mandatory key environmental issues, so that GHG emissions are considered when identifying BAT alongside with pollutant emission
- the setting of shorter BREF cycles focusing on recent innovations and their expected future environmental performance, i.e. Emerging Techniques Associated Emission Levels (ET-AELs)
- the revision of IED Article 21(3) to allow more time for operators to implement higher performing emerging techniques with a high TRL (this would be supported by inclusion in BREFs of stricter long-term ET-AELs reflecting the expected environmental performance of emerging techniques)

We have strong reservation regarding the option consisting in establishing a long-term permit review obligation (e.g. by 2035) focusing on the capacity of the concerned installations to operate in accordance with EU's carbon neutrality objectives

A detailed analysis supporting those conclusions is provided in the paper.

I. INTRODUCTION: THE CLIMATE-NEUTRALITY CHALLENGE

The success of an EU Strategy for long-term EU greenhouse gas emissions reduction will largely depend on the pace of industry's transformation, as shown in the Master Plan² that sets out concrete policy recommendations in each of the following areas:

- Creating markets for climate-neutral, circular economy products;
- Supporting rapid demonstration of breakthrough technologies on an industrial scale through major R&D&I programmes and facilitating access to private finance;
- > Securing industry's access to alternative energy and feedstock sources at competitive prices.

Our industrial installations belong to complex value chains and are heavily dependent on other sectors, notably the energy sector, to help achieve the climate-neutrality objective.

The disruptive breakthrough technologies needed require sufficient time to be developed, upscaled and commercialised. Similarly, major energy and other infrastructure changes will need to be implemented to enable significant emission reductions.

All our sectors have set out decarbonisation pathways in their respective technological roadmaps³. Delivering on them requires massive investments under a stable and facilitating regulatory framework. Investment cycles should also be taken into consideration, as innovation will not follow a linear path.

² <u>Masterplan for a Competitive Transformation of EU Energy-intensive Industries Enabling a Climate-neutral, Circular Economy by 2050</u> (adopted by the HLG EIIs in November 2019). The Master Plan benefited from the strong support of EC services and was based on valuable contributions of Member States, the energy sector as well as, workers' organizations, civil society, think tanks and academia.

³ Master plan web site where technological roadmaps are referred to

The various decarbonisation options are not available to the same extent across sectors and regions, and may not lead to the same mitigation potential regarding both their respective direct (scope 1) and indirect (scope 2) emissions.

It is important to note that the implementation of many GHG abatement options is not directly under the control of the operators of IED installations and depends on external factors such as access to lowcarbon energy and feedstock, or infrastructure.

GHG reduction will entail much higher electricity demand across the industry since it enables emission reductions for several industrial processes. At the same time, energy efficiency, while remaining a driving principle from an environmental and economic point of view, will not be sufficient in itself to reach climate-neutrality.

Finally, as the recent study performed by Wood⁴ "Wider environmental impacts of industry decarbonisation" concludes, "there are significant uncertainties in terms of direct and indirect environmental impacts, often related to the maturity of the decarbonisation technologies". Our April 2020 joint submission to the IED inception impact assessment⁵ had anticipated that, and recommended that "the IED permitting process may be adapted to support the deployment of those breakthrough technologies".

II. WHAT IS THE ROLE OF THE IED?

Our sectors support the Commission's Green Deal objective to review EU measures to address pollution from large industrial installations, look at the sectoral scope of the legislation and how to make it fully consistent with climate policies.

In the medium/long-term, GHG abatement technologies will contribute to achieving climate-neutrality through a significant reduction of both <u>direct or indirect</u> GHG emissions. However, those technologies will also impact other emissions so the pros and cons and the cross-media effect need to be carefully evaluated.

In that respect, we believe it is essential to preserve the Industrial Emissions Directive core principles. Namely, the BAT-based permitting process is based on a thorough data collection exercise, which enables the setting of meaningful BAT associated emission levels, while addressing cross-media effect through an integrated approach for the environment considered as a whole.

III. OPTIONS FOR THE REVISION OF THE INDUSTRIAL EMISSIONS DIRECTIVE

Problem 2: Climate crisis is happening (page 28 of the TSS)

Option 1: Deleting the provision that exempts (agro-) industrial plants from setting GHG ELVs and energy efficiency requirements in permit conditions if they are regulated by the EU ETS (IED Article 9)

The EU Emissions Trading System (EU ETS) is a cornerstone of the Union's climate policy and it is the key tool for reducing GHG emissions in the industry in the most cost-effective way. The key economic rationale behind emissions trading is to ensure that emissions reductions required to achieve a predetermined environmental outcome take place where the cost of reduction is the lowest. The energy legislative framework (RED, EED, etc.) has also indirectly contributed to reducing GHG emissions in and from the industry by promoting energy efficiency and consumption of renewable energy.

The ETS applies to most of the significant GHG emitting activities that are already covered by the IED. Since they coexist, Member States competent authorities and operators have been able to combine

⁴ https://circabc.europa.eu/d/a/workspace/SpacesStore/c027a361-02da-49f4-b187-63f9e429561d/Final_report.pdf

 $^{{}^{5}\,\}underline{\text{https://www.fuelseurope.eu/wp-content/uploads/2020-04-15-Ells-on-GHG-abatement-measures.pdf}}$

the permitting procedures for both the ETS Directive and the IED, while respecting the differences in the nature of the permits and their respective objectives.

In particular, the smooth interplay between the ETS and the IED is ensured by Article 9.1. It is explicit that if pollutants from an installation are covered by the ETS, then emission limit values shall not be set in respect of the direct emissions of those gases from that installation under the IED unless they have a significant local impact. GHG emissions that are not covered by ETS remain regulated under the IED⁶.

Hence regulating GHGs under the IED permitting regime would be counter-productive for several reasons:

> GHG and pollutants have different types of environmental and geographical impacts, so it makes sense to tackle them through separate dedicated instruments

Pollutants have local effects, including those on human health, while the impact of most GHG is global and their emissions do not directly affect the local environment nor the health of the neighboring communities.

> The EU industry shall remain competitive throughout the transformation

Plant closures or redirection of investments outside of the EU, which might be the short- or long-term consequence of asymmetrical climate policies, will likely result in GHG emissions happening elsewhere with no beneficial impact, or even negative impacts, for the climate. In order to prevent this from happening, a sophisticated carbon leakage protection system has been established within the EU ETS regulation and additional measures to strengthen this are under consideration. We believe that this carbon leakage concern should be kept addressed as part of the upcoming 'fit for 55' package where the revision of the ETS will be included.

Due to the different regulatory approaches, tackling GHG emissions both under the ETS and the IED cannot be done in a consistent manner and would simply result in inefficient regulations

The IED is a control and command, technology-driven instrument, while the EU ETS is a market-based instrument, which cover industrial emissions. Where an installation would be regulated twice, it may incur in additional compliance costs (i.e. the cost per ton of GHG abated of technologies to meet a hypothetical ELV based on BAT AELs). This would significantly outweigh the EUA price, making the EU ETS ineffective for the sector at stake.

Tackling GHG emissions also under the IED would change its core principles and would make the BAT and permitting processes very complex both for operators and authorities.

The technology neutrality principle should keep prevailing to tackle GHG emissions through a market-based instrument, rather than applying a control and command approach

We do acknowledge the key principle according to which the techniques listed and described in BAT conclusions are neither prescriptive nor exhaustive (other techniques may be used that ensure at least an equivalent level of environmental protection). However, setting GHG performance standards at the fences of an IED installation would conflict with the way the product, heat, fuel, process emissions benchmarks have been established for sectors covered by the ETS, based on a comprehensive and sophisticated data collection at the sub-installation level, with some of them accounting for the exchangeability of electricity and fuels.

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⁶ In a few cases, BAT-AELs have been set for GHGs not covered by Annex II of the ETS Directive (page 28 of the TSS).

We hardly see how technology-driven standards and CO₂ benchmarks would co-exist consistently since they cannot address the same carbon intensity.

Regulating GHG at the unit level would be inefficient

By setting a GHG emissions constraint at the level of each unit instead of the installation level (as the ETS does), the IED would leave no flexibility to the operator of the site to optimise the abatement option through a cost-efficient approach.

Energy requirements including energy efficiency are always of high interest for an IED installation to remain competitive. However, many abatement technologies and techniques enabling the manufacturing of new sustainable products will require a much higher amount of energy compared to today's state-of-the-art technologies. Regarding BAT conclusions on energy efficiency, we believe they should keep their indicative nature in the BAT conclusions context. Hence setting mandatory AEPLs would lead to absurd situations where an operator could not at the same time contribute to the achievement of the EU climate-neutrality objective and comply with its IED permit.

In conclusion, we support a full coherence with the IED and reject the option to regulate GHG emissions under an IED permitting regime and to make energy requirements (e.g. energy efficiency-related BAT Associated Performance Levels) binding. We do not support the option of deleting the IED article 9.

Option 2: Identifying direct and indirect GHG as mandatory key environmental issues (KEIs), so that GHG emissions are considered when identifying BAT alongside with pollutant emission

For the reasons explained above, we do not support that option. The IED shall remain the tool to exclusively regulate direct emissions that are under the control of the operators. Moreover, GHG that are already regulated under the ETS shall not be identified as KEI and "BAT" shall not be derived from a GHG-related data collection.

Option 3: Establishing a long-term permit review obligation (e.g. by 2035) focusing on the capacity of the concerned installations to operate in accordance with EU's carbon neutrality objectives.

IED article 21 "Reconsideration and updating of permit conditions by the competent authority" already periodically triggers permit review, in particular where new BAT conclusions are published. This mechanism ensures that installations remain up to date with the best available techniques allowing for significant reduction in emissions.

The formulation of this option triggers a number of questions with regards to the pursued objective and the proposed mechanism. Evaluating the "capacity of an IED installation to operate in accordance with EU Green Deal objectives" is not straightforward. It needs to be clarified what the following terms mean:

- "operate in accordance" when at any moment in time, not all low carbon pathways are known yet and/or accessible
- "capacity of an IED installation to operate" when this can be assessed against various economic, social and technical criteria

Assuming all above ambiguities are satisfactorily addressed, it is still unclear what the consequence of a negative assessment would be (i.e. the installation has <u>not</u> the capacity to operate in accordance with EU's objectives). It remains to be further discussed whether this would result in the competent authorities withdraw the operating permit at stake. If so, the supply of the manufactured products might be reshuffled. The products instead would be imported from installations located in non-EU regions that do not operate in accordance with an EU-like climate objective.

Many parameters play a key role in the decision of a company to invest in low carbon technologies such as marginal abatement costs, the length of investment cycles, exposure to global competition and its role in delivering emission reductions along value-chains, all aspects that can hardly be addressed through an IED permit review obligation.

Moreover, many of those low carbon pathways are not directly under the control of the operator of an IED installation where its carbon intensity is predominantly made of indirect/upstream related emissions.

The EU Green Deal "is a new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use."

Contributing to the achievement of the EU climate neutrality objectives regards the EU society as a whole. All segments of the economy will have to contribute with their share. Every installation in all IED-covered industrial sectors will have to contribute at a different speed after having selected their own optimal pathways.

In conclusion, we want to express our strong reservation regarding this option.

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Problem 4: State of the art techniques cannot respond satisfactorily to problem areas #1 to #3 (page 37 of the TSS)

Innovation must be given proper funding and the right time to flourish. We support reviewing the maturity of the candidate's emerging/innovative techniques when reviewing a BREF. It is essential to grant sufficient time for testing such techniques and even more before assessing them against the BAT criteria (annex 3 of the IED).

Option 1: Shorter BREF cycle focusing on recent innovations and their expected future environmental performance, i.e. Emerging Techniques Associated Emission Levels (ET-AELs)

One should not dilute and confuse the existing concept of BAT-AELs with other concepts as ET-AELs. The general description of an Emerging Technique in the BREF should not lead to the derivation of "ET-AELs" because of the significant uncertainties due to low maturity of the decarbonisation options (small scale or pilot projects) in many sectors as acknowledged by Woodplc decarbonisation study $(03/03/2021)^7$.

In conclusion, we do not support that option.

Option 2: Upscale the Industrial Emissions Innovation Observatory to monitor the Technology Readiness Level (TRL) of emerging and breakthrough technologies. Recognition by the Observatory of an advanced TRL would trigger BREF reviews.

We fully support fostering innovation as well as a better use and staffing of the innovation observatory. The participation of operators and experts from the industry is essential. An appropriate selection of applied RTD institutes and technology developers and providers should be implemented to ensure a well-balanced representation of stakeholders.

For the industry to support, that option one needs to:

define what "advanced TRL" means (in particular we believe that at least one industrial-scale plant shall be in operation)

¹ https://circabc.europa.eu/d/a/workspace/SpacesStore/c027a361-02da-49f4-b187-63f9e429561d/Final_report.pdf

- > collect robust operational data from those installations where the technique is performed under normal operating conditions
- run the Sevilla process where the TWG will take a decision on the status of the technology at stake and whether or not it is considered as BAT

In conclusion, we conditionally support that option.

Option 3: Revision of IED (Art 15(5)) to facilitate development and testing of emerging techniques (currently allows testing of emerging techniques over a period of up to 9 months, revision would involve extending time period (period to be determined)).

As the master plan indicates, "The Industrial Emissions Directive permitting process should be adapted to support GHG abatement measures in energy-intensive installations throughout the transition. The low carbon emission technologies under development should be assessed as potential emerging techniques during the BREF drawing and reviewing process".

GHG abatement measures may entail environmental impacts, for most activities under the scope of the IED. In that respect, the IED permitting process may be adapted to support the deployment of those breakthrough technologies. One option could be to adapt Article 15(5) to allow testing those technologies (a priori not referred to in the more recent BAT conclusions applicable to the sectors at stake) and assess more broadly their possible wider impacts on the environment and their compliance with the existing BAT conclusions where relevant.

In conclusion, we support that option.

Option 4: Revision of IED Article 21(3) to provide more than 4 years for deep transformation of industrial sectors, where BAT conclusions have recognised innovative techniques being BAT and require dramatic changes across a sector (e.g., requiring co-adoption of novel techniques that substantially reduce GHG emissions as well as emissions of other pollutants/use of materials and resources).

Having considered the challenges before us, as explained in the introduction, we believe that an additional period before the compliance with BAT AELs becomes mandatory is welcomed, whatever the new innovative technique that will be recognised as BAT after completing any upcoming BREF reviews, ending with the adoption of BAT conclusions. In that respect, we believe article 21.3 should be revised to allow more time where specific conditions are met.

In conclusion, we support that option.

Option 5: Revision of IED Article 21(3) to allow more time for operators to implement higher performing emerging techniques with a high Technology Readiness Level (TRL), instead of implementing BAT within four years. This would be supported by inclusion in BREFs of stricter long-term Emerging Techniques Associated Emission Levels (ET-AELs) reflecting the expected environmental performance of emerging techniques.

Generally, we see a benefit in looking at new techniques closer and more frequently, but we also need caution to evaluate if those technologies are ready, technically proven and economically viable before they can be used as a reference to set permit conditions.

However, consistently with the position, we take on BAT AELs for GHG (see problem 2, option 1) we do not support deriving ET-AELs because of the significant uncertainties due to the low maturity of

the decarbonisation options (small scale or pilot projects) in many sectors as acknowledged by Woodplc decarbonisation study (03/03/2021)⁸

In conclusion, we do not support that option.

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Responses to the revision of the Industrial Emissions Directive Targeted Stakeholder Survey (problems 2 and 4)

We wanted to share our discontent with the way the questionnaire was developed. Firstly, some questions were not clear leaving too much room for interpretation on their specific intention. Secondly, the limited reply possibilities made it very difficult to provide a representative reply: there is either no adequate level of flexibility to allow for a desired answer (e.g. when it is only possible to refer to an improvement and not a deterioration or when the TSS requires to assess the impacts of policy options on environmental media/parameters separately in contrast to the integrated approach principle) or it is not possible to justify our answer.

This resulted in our alliance providing different replies, while wanting to share the same messages. For this reason, we strongly believe that it was necessary to clarify our common messages as done throughout the current document.

⁸ https://circabc.europa.eu/d/a/workspace/SpacesStore/c027a361-02da-49f4-b187-63f9e429561d/Final_report.pdf