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Combating climate change: New IED and ETS interactions required

Legal note on why a redesign of the IED and ETS relation is urgently needed

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Executive Summary

The EU's Industrial Emissions Directive (IED, 2010/75/EU) is the main EU instrument regulating pollutant emissions from (agro)industrial installations. This key piece of legislation is now being revised by the European Commission.[1] While various policy options are under consideration, this legal note focuses on strengthening the IED's role in combating climate change.

A revised IED has the potential to be one of the key legislative instruments translating the climate targets under the Paris Agreement and the new EU Climate Law into tangible legal obligations.

The IED covers the largest emitters of greenhouse gas (GHG) pollution in the EU. However, clear provisions on industry's decarbonisation are hindered: GHG emission limit values and binding energy efficiency standards are currently excluded from the IED for installations falling under the Emissions Trading System Directive (ETSD)[2].

This paper aims to illustrate why there is an urgent need to reshape the relation between the IED and the ETSD:

1. The policy and legal situation since IED's recast in 2010 has changed drastically, especially with the Communication of the European Green Deal (EGD). At the same time, the urgency to combat climate continues to increase. As the EU is obliged to ensure consistency between its new policies and activities, it must redesign the interactions between the IED and ETSD accordingly.

2. The ETSD alone is insufficient to respond to today's challenges, especially because it does not focus on the technical possibilities to prevent emissions.

3. The IED provides necessary tools to support the decarbonisation of the relevant industries, in particular thanks to its broad scope, its integrated prevention and control system to achieve a high level of protection of the environment taken as a whole, and its focus on technology.

4. Complementary interactions between the IED and ETSD must follow EU's environmental principles, first and foremost the prevention principle, in accordance with the new 'Hierarchy of action on pollution' developed by the Commission.

5. Exploiting the synergies between the ETSD and IED can lead to technological innovations that are beneficial for operators, the environment and the climate.

In light of the above, ClientEarth strongly supports the inclusion of scientifically-based GHG emission limit values under the scope of the IED and the introduction of mandatory energy efficiency requirements. The current exclusion provisions in Art. 9 IED and Art. 26 ETSD must be deleted accordingly.

[1] See Commission, Initiative 'Industrial emissions – EU rules updated', https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12306-EU-rules-on-industrial-emissions-revision.
[2] Directive 2003/87/EC, also currently under revision, see Commission, Initiative 'Climate change – updating the EU emissions trading system (ETS)', https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12660-Updating-the-EU-Emissions-Trading-System.

Background

ClientEarth is a non-profit European environmental law organisation with offices in Brussels, London, Madrid, Berlin, Warsaw and Luxembourg (as well as Beijing and Los Angeles). In total, ClientEarth has over 200 staff working on projects in more than 50 countries. Using the power of the law, we develop legal strategies and tools to address major environmental issues, we provide legal support and information to most of the environmental NGOs in Brussels (and beyond) and use the courts where necessary to enforce environmental law. The organisation is composed of programmes on Climate, Energy, Fossil Fuel Infrastructure, Trade, Oceans, Harmful Chemicals, Plastics, Clean Air, Wildlife, Forest, Agriculture and Environmental Democracy.

ClientEarth has many years of experience in enforcement of EU environmental legal obligations, and with respect to advocating for the adoption of improved environmental legal standards. One of our major projects concerns the implementation of the Industrial Emissions Directive (IED) in countries across Europe, including in particular with respect to coal power plants. We conduct this work jointly with partners at the national level in countries including Belgium, Bulgaria, Germany, Greece, Italy, Poland, Romania, Spain as well as beyond the EU in particular in the United Kingdom and Serbia. We also have specific expertise in the fields of access to justice, access to information and public participation.

As part of IED's Evaluation and Update Initiatives, ClientEarth provided inter alia the submissions "IED Evaluation - issues concerning access to justice, access to information, and public participation" [3] and the "IED Inception Impact Assessment input"[4], as well as supported EEB's contributions. The present paper will complement our responses to the Public Consultation and to the Targeted Stakeholder Survey in March and April 2021.[5]

This legal note focuses on IED's potentially strengthened role for combating climate change. In the current text, progressive rules on industry's decarbonisation are being hindered. Art. 9(1) IED prevents Member States from including limits on greenhouse gases in integrated IED permits, whereas Art. 9(2) IED renders energy efficiency requirements optional for installations falling under the ETSD (mirroring Art. 26 ETSD)[6].

The paper illustrates why there is an urgent need to reshape the interactions between the two laws and to delete the current exclusion provisions in Art. 9 IED and Art. 26 ETSD.

[3] ClientEarth, IED Evaluation - issues concerning access to justice, access to information, and public participation, 13/09/2019, https://www.documents.clientearth.org/wp-content/uploads/library/2019-09-16-ied-fitness-check-response-aarhus-issues-ce-en.pdf

[4] ClientEarth, IED Inception Impact Assessment input , 22/04/2020, https://www.documents.clientearth.org/wp-content/uploads/library/2020-04-22-ied-update-inception-impact-assessment-clientearth-response-ce-en.pdf

[5] See Commission, Initiative 'Industrial emissions – EU rules updated', https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12306-EU-rules-on-industrial-emissions-revision.

[6] Directive 2003/87/EC, also currently under revision, see Commission, Initiative 'Climate change – updating the EU emissions trading system (ETS)', https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12660-Updating-the-EU-Emissions-Trading-System.

1. New commitments require new interactions

The EU is legally obliged to **ensure consistency between its policies and activities**, taking all of its objectives into account (Art. 7 TFEU), in particular environmental protection (Art. 11 TFEU). Environmental protection includes combating climate change (Art. 191(1) TFEU). Additionally, Member States are obliged to act consistently with, and in support of, commitments taken by the EU (Art. 4(3) TEU), which includes acting on the behalf of EU's international commitments.

A lot has happened since the IED's last recast in 2010. While the timeframe for action is getting shorter, the scientific understanding of climate change continues to increase.[7] All the more significant developments have taken place at policy and legal levels:

The EU and its Member States signed the **Paris Agreement**, the "first-ever universal, legally binding global climate change agreement"[8], which entered into force in 2016 only. It sets out a global framework to avoid dangerous climate change by limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C. To achieve this, GHG emissions (including CO_2 and non-CO_2 emissions) have to fall drastically as of now, and reach net zero by 2050.[9] The EU in particular bears a duty to reach zero GHG emissions ahead of other parties according to the Paris Agreement's principle of common but differentiated responsibilities and respective capabilities, given the EU's relatively high share of the historical emissions budget, and its high degree of economic and technical capability.

At EU level, policies and legislation have also evolved, above all with the Communication of the **European Green Deal** (EGD) in 2019. Now is the time to see whether the Commission is serious about the promises it made in the EGD, such as "to exploit the available synergies across all policy areas",[10] "to rethink policies for clean energy supply"[11] and that "transformational change is most needed and potentially most beneficial for the EU economy, society and natural environment".[12] Those promises find a specific meaning when it comes to addressing pollution from large industrial installations. The Commission acknowledges the interaction between environmental and climate pollution as it "will look at the sectoral scope of the legislation and at how to make it fully consistent with climate, energy and circular economy policies."[13]

[7] The Commission itself confirms: "Greenhouse gas emissions-neutrality by 2050, effectively tackling GHG emissions has become more important compared to when the IED was adopted back in 2010. In addition, the time frame for action is shorter than at the time of the IED development, with a clear recognition that energy-intensive industries also need to start planning and taking action to reduce and, where possible, eliminate their GHG emissions along with their other impacts.", see Evaluation of the Industrial Emissions Directive, SWD(2020) 181, 23/09/2020, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0181&rid=2, page 77.
[8] Commission, Climate Action – Paris Agreement, https://ec.europa.eu/clima/policies/international/negotiations/paris_en.
[9] According to the Intergovernmental Panel on Climate Change (IPCC), in order to limit global warming to 1.5°C as foreseen under the Paris Agreement, we must achieve 45% reductions in carbon dioxide emissions from 2010 before 2030, along with deep reductions for non-CO2 greenhouse gases, including reductions of methane emissions of 20% by 2030 and at least 35% by 2050, see for more ClientEarth, ClientEarth's feedback to the European Commission's Methane Strategy Roadmap, August 2020, https://www.documents.clientearth.org/wp-content/uploads/library/2020-08-06-clientearth-s-feedback-to-the-european-commission-s-methane-strategy-roadmap-ce-en.pdf, page 2.
[10] Communication from the Commission, The European Green Deal, COM(2019) 640 final, 11/12/2019, https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1588580774040&uri=CELEX:52019DC0640, page 3.
[11] The European Green Deal, page 4.
[12] The European Green Deal, page 4.
[13] The European Green Deal, page 14, 15.

The revision of the IED, including the revision of its interaction with the ETSD, must be done consistently with the new commitments and strategies following the EGD. The upcoming **EU Climate Law** will, for the first time, make the climate neutrality ambition by 2050 legally binding. It will also set a stricter EU GHG emissions reduction target by 2030. Other already established strategies, legislation and plans as well as Roadmaps and Inception Impact Assessments for files that are still under development, clearly demonstrate the need for strong and comprehensive actions, including:

- the **Zero Pollution Action Plan**[14], aiming to better prevent, remedy, monitor and report on pollution and incorporate a zero pollution ambition into all of its policies.
- the **Circular Economy Action Plan**[15], presenting a set of interrelated initiatives to establish a strong and coherent product policy framework, as scaling up the circular economy will make a decisive contribution to achieving climate neutrality by 2050 and decoupling economic growth from resource use.
- the **Methane Strategy**[16] and a new EU's Methane Regulation[17], addressing the second biggest contributor to climate change.
- the Biodiversity Strategy[18], Farm to Fork Strategy[19], Soil Strategy[20], and Chemicals Strategy on Sustainability[21], as well as the new Industry Strategy[22] and others that are interlinked with environmental and climate pollution.

As environmental policy grows, so does the need for interactions between different policy instruments, as also highlighted in the **8th Environment Action Programme** (EAP) to 2030 currently being developed.[23] The EAP, as proposed by the Commission, seeks to accelerate the EU's transition to a climate-neutral, resource-efficient, clean and circular economy in a just and inclusive way. It lists six thematic priority objectives, including irreversible and gradual reduction of GHG emissions, advancing towards a regenerative growth model that gives back to the planet more than it takes, pursuing a zero-pollution

[14] Commission, Roadmap, EU Action Plan "Towards a Zero Pollution Ambition for air, water and soil – building a Healthier Planet for Healthier People", Ares(2020)5152184, 01/10/2020, https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12588-EU-Action-Plan-Towards-a-Zero-Pollution-Ambition-for-air-water-and-soil.
[15] Communication from the Commission, A new Circular Economy Action Plan For a cleaner and more competitive Europe, COM/2020/98 final, 11/03/2020, https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN.
[16] Communication from the Commission, EU strategy to reduce methane emissions, COM(2020) 663 final, 14/10/2020, https://ec.europa.eu/energy/sites/ener/files/eu_methane_strategy.pdf.
[17] Commission, Inception impact assessment, Proposal for a legislative act to reduce methane emissions in the oil, gas and coal sectors, Ares(2020)7864968, 22/12/2020, https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12581-Proposal-for-a-legislative-act-on-methane-leakage-in-the-energy-sector.
[18] Communication from the Commission, EU Biodiversity Strategy for 2030 Bringing nature back into our lives, COM/2020/380 final, 20/05/2020, https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1590574123338&uri=CELEX:52020DC0380.
[19] Communication from the Commission, A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system, COM/2020/381 final, 20/05/2020, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0381&from=EN.
[20] Commission, Roadmap, New Soil Strategy - healthy soil for a healthy life, Ares(2020)6391319, 05/11/2020, https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12634-Healthy-soils-new-EU-soil-strategy.
[21] Communication from the Commission, Chemicals Strategy for Sustainability Towards a Toxic-Free Environment, COM(2020) 667 final, 14/10/2020, https://ec.europa.eu/environment/pdf/chemicals/2020/10/Strategy.pdf.
[22] Communication from the Commission, A New Industrial Strategy for Europe, COM/2020/102 final, 10/03/2020, https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1593086905382&uri=CELEX%3A52020DC0102.
[23] Proposal for a Decision of the European Parliament and of the Council on a General Union Environment Action Programme to 2030, COM(2020) 652 final, https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12709-New-8th-Environment-Action-Programme-supporting-the-European-Green-Deal.

ambition for a toxic-free environment, as well as reducing key environmental and climate pressures related to production and consumption, in particular in the areas of energy and industrial development (draft Art. 2(2) EAP).

Since listing objectives is not enough, the draft EAP puts particular efforts into streamlining policy interactions: "The current proposal serves to increase coherence and synergies between actions across all level of governance by measuring progress towards environmental and climate objectives in an integrated way." (draft explanation of Art. 1 EAP). It asks for strengthening the integrated approach through mainstreaming the priority objectives in all relevant strategies and (non-)legislative initiatives (draft Art. 3(1)(b) EAP). Coherence between internal and external approaches and coordinated action is also required, in particular as regards strengthening the implementation of the Paris Agreement (draft Art. 3(1)(k) EAP).

The need for a closer link between environmental and climate pollution in permitting and planning processes had already been highlighted before the adoption of the EGD, notably during the revision process of the **Environmental Impact Assessment Directive** (EIAD, 2011/92/EU). The revised version of the EIAD in 2014 finally stated explicitly that climate impacts should be part of EIAs. Its recitals stress that the amendments to the directive were necessary, *inter alia,* in order to "enhance coherence and synergies with other Union legislation and policies" (Recital 3 EIAD). It further makes clear that "[o]ver the last decade, environmental issues, such as resource efficiency and (…) climate change (…) have become more important in policy making. They should therefore also constitute important elements in assessment and decision-making processes." (Recital 7 EIAD).

In order to ensure that the 2014 amendments to the EIAD fully achieve their purpose, substantive law has to be interpreted or amended accordingly. The impacts of projects on climate (for example the nature and magnitude of GHG emissions, see also Art. 3(1c), Annex III, IV EIAD) will have to play a stronger role not only as it comes to the assessments procedures, but all the more when it comes to the consequences in material law, such as to requirements under the IED. Assessing the impact on climate without any influence on the final content of a permit decision would not help the climate. In this context, the draft EAP also asks explicitly to maximise the benefits from implementing the EIAD and Strategic Environmental Assessment Directive (SEAD) to achieve its priority objectives (draft Art. 3(1)(b) EAP).

In line with the drastic policy and legislative changes that have taken place since 2010, it has now become a necessity that the EU revises the interaction between IED and ETSD.

2. ETS alone does not provide sufficient response

The EU ETS does not provide the complete answer to today's challenges, not in its current form, nor the revised form being discussed by the Commission according to the Inception Impact Assessment[24]. Its shortcomings require complementary measures.

[24] Commission, Inception impact assessment, Amendment of the EU Emissions Trading System (Directive 2003/87/EC), Ref. Ares(2020)6081850, 29/10/2020, https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12660-Updating-the-EU-Emissions-Trading-System.

Between 1990 and 2018, the EU reduced its GHG emissions by 23%. At that pace, the EU will not be able to reach its original EU reduction target of -40% by 2030,[25] and even less so the more ambitious targets that are expected under the upcoming EU Climate Law. The exact figure is not yet know, but the European Commission proposed a net reduction of at least 55% of EU's GHG emissions compared to 1990 levels, and the European Parliament calls for a 60% reduction.[26] ENGOs ask to cut at least 65% GHG emissions in order to comply with the Paris Agreement and fulfil the EU's share according to the principle of common but differentiated responsibilities and respective capabilities.[27]

Whichever of the above target is eventually adopted, a drastic change in the current trajectory will be necessary, with urgent, profound and much more systematic efforts. In 2019, the EGD stated clearly that achieving a climate neutral and circular economy would require the full mobilisation of industry and that it takes "25 years – a generation – to transform an industrial sector and all the value chains. To be ready in 2050, decisions and actions need to be taken in the next five years".[28]

It becomes clear that only searching for solutions in the ETS is not enough. Besides the possibilities to improve the current ETSD design and potential reform options,[29] there are fundamental shortcomings in this system. The ETS establishes a framework to reduce (certain) economy-wide GHG through a cap and trade scheme, but it does not focus on the huge potential of enhancing prevention technologies. It does not cap the level of emissions related to a particular project, site or industry and it does not on its own ensure that the most cost-effective approach is followed for each activity. This gap was implicitly recognised by the Commission itself when proposing the ETSD in 2001 and adding: "**Limitation of emissions will require an effort to be made by installations**, but emissions trading will enable reductions to be made **more** cost-effectively."[30] (emphasis added).

Relying on the ETS alone means, *in principle*, that those who can afford to pay, pay.[31] It presents significant lock-in risks as certain sectors can continue 'business as usual' while failing to make real progress towards decarbonisation. All the more, given its *trading* approach, it can also lead to a displacement of pollution from one activity to another.

The EU's new targets require that all levers be pulled: there is **no room (nor time) for allowing industries and operators the option not to invest in cleaner technologies**. The use of all available instruments, including a strengthened regulatory approach complementing and supporting the EU ETS, is key to driving appropriate investments.

[25] EEA, Trends and projections in Europe 2020, Report No 13/2020, available at https://www.eea.europa.eu/publications/trends-and-projections-in-europe-2020, page 7.
[26] European Parliament, EPRS, European climate law, Briefing December 2020, https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI(2020)649385.
[27] See e.g. CAN-E, FACTSHEET: science shows 65% emission reduction by 2030 is feasible and pays off, 08/09/2020, https://caneurope.org/factsheet-science-shows-65-emission-reduction-by-2030-is-feasible-and-pays-off/#:~:text=According%20to%20the%20latest%20UNEP,at%20least%2065%25%20by%202030.
[28] Communication from the Commission, The European Green Deal, COM(2019) 640 final, 11/12/2019, https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1588580774040&uri=CELEX:52019DC0640, page 7.
[29] See e.g. CMW, Carbon Market Watch's response to the public consultation on the EU Emissions Trading System (EU ETS) review, February 2021, https://carbonmarketwatch.org/wp-content/uploads/2021/02/Response-to-EC-public-consultation-on-updating-the-EU-ETS.pdf.
[30] Proposal for a Directive of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC, COM/2001/0581 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52001PC0581, Explanatory Memorandum.
[31] Leaving aside issues like free allowances granted for certain installations that again have to be seen critical, see ibid.

The need for supplementary approaches has already been recognised by countries within and outside the EU. The United Kingdom (UK), for example, introduced GHG emission limits in addition to the ETS. As the UK Climate Change Committee (CCC) have advised: "Carbon pricing is important, but market mechanisms by themselves will not achieve full decarbonisation – supplementary policies will be needed to address barriers and overcome preferences driven by factors other than price, as well as to deal with myopia and price uncertainty. (…) The Government should not rely on carbon pricing alone. **Whilst carbon pricing is essential it needs to be used as part of a suite of policy instruments, as confirmed by real-world experience internationally.**"[32] (emphasis added).

Indeed, in a briefing document accompanying its recent Sixth Carbon Budget advice, the CCC specifically cites adjustment of the existing EU Best Available Techniques reference documents as a potential means of accelerating emissions reduction in the industrial sector.[33]

3. Revised IED provides systematic response

A revised IED, including emission limit values (ELVs) for all GHG and energy efficiency standards, could provide means for tackling climate change more urgently and more systematically.

(a) Comprehensive scope

Already today, the **IED covers extremely resource and energy-intensive industrial activities** (e.g. large combustion plants, iron, steel, glass and cement production, chemicals industry, waste management, certain agriculture activities, see Annex I) and the largest emitters of GHG in the EU. The scope of the revised IED may be even expanded to additional GHG intensive sectors, including e.g. methane emissions from mining activities or cattle farms. The broad scope of the IED enables to ensure all GHG intensive activities are covered. The EU ETS regulates only around 45% of EU's total GHG emissions, as it does not have a comprehensive approach.[34] For example, the production and use of energy across economic sectors account for more than 75% of all GHG emissions in the EU[35] – not all of it is covered by the ETS.

(b) Integrated approach

The IED is already an ideal instrument for combining rules on climate and environmental pollution. It follows an integrated approach to **prevention and control** of emissions into air, water and soil, to waste management, to energy efficiency and to accident prevention, while also aiming to contribute to the achievement of a level playing field in the Union (Recital 3 IED). Its integrated prevention and control system lays down rules in order to achieve a high level of protection of the **environment "taken as a**

[32] CCC, Letter: The future of carbon pricing, 08/08/2019, https://www.theccc.org.uk/publication/letter-the-future-of-carbon-pricing/.
[33] CCC, The Potential of Product Standards to Address Industrial Emissions, 09/12/2020, https://www.theccc.org.uk/publication/the-potential-of-product-standards-to-address-industrial-emissions/ („
[34] CMW/EEB, A New Industry Framework for achieving the EU Green Deal 'Zero Pollution' Goal, June 2020, https://carbonmarketwatch.org/wp-content/uploads/2020/06/A-New-Industry-Framework-For-Achieving-the-EU-Green-Deal-Zero-Pollution-Goal-1.pdf, page 5.
[35] Communication from the Commission, The European Green Deal, COM(2019) 640 final, 11/12/2019, https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1588580774040&uri=CELEX:52019DC0640, page 10.

whole" (Art. 1 IED). In addition, it does not only focus on local pollution, but seeks to minimise long-distance and transboundary pollution (Art. 14(1)(g) IED).

Excluding some of the most significant emissions from the scope of legislation that follows an integrated approach to prevention and control of emissions is unsystematic and arbitrary. Protecting the environment as a whole does include combating climate change. This is reaffirmed in Art. 191(1) TFEU, which states clearly that Union policy on the environment shall contribute especially to combating climate change. It is also within the ambit of the IED itself, as it seeks to protect the environment from pollutants in a broad sense (Art. 3(2) IED). Already today, GHG emissions are one of several pollutants covered by the IED:

- For non-ETS installations, it is already possible to set ELVs on GHG emissions and energy efficiency requirements.[36] However, in practice, the exclusion of ETS installations (Art. 9 IED, Art. 26 ETSD) led to such requirements generally being omitted from BREF reviews, irrespective of whether the installations fall under the ETS or not.

- For ETS-installations, GHG ELVs may be set where it is necessary to ensure that no significant local pollution is caused (Art. 9(1) IED).

- Energy efficiency is one of the criteria for determining best available techniques (Annex III IED) and one of the operator's general principles (Art. 11(f) IED). For combustion plants falling under ETS, Member States may choose "not" to impose energy efficiency requirements, which seems to imply that Member States would still impose them on a regular basis.

- The IED also does not prevent Member States from maintaining or introducing more stringent protective measures, "for example greenhouse gas emission requirements" (Recital 10 IED).[37] The UK, when it was a member of the EU, made use of this legal basis and introduced e.g. a duty not to exceed annual carbon dioxide emissions limits for operators of any fossil fuel plant (Section 57 of UK's Energy Act 2013). This example demonstrates in principle that both legal instruments can co-exist for the same installations within the EU.

These inclusions and exclusions under the current IED show that **a systematic and harmonised approach throughout the EU is needed.** This can be achieved by deleting the exemptions of Art. 9 IED (and Art. 26 ETS). Energy savings, and prevention and reduction of GHG emissions have to be more than just "by-products" of the IED. The fossil fuel sector, such as coal or gas power plants, presents huge potential for energy savings and the reduction of GHG emissions. Yet, up to this day, we have observed that neither the ETS, nor the fragmented rules of today's IED prevented the development of new highly polluting installations in this sector.

Regulating both GHG and non-GHG emissions under the same legislation enables all the more to assess effectively in one procedure **all kind of (multiple) effects of emissions,**[38] **including secondary and long-range pollutants**. A separation of certain pollutants seems to be artificial and arbitrary. Methane, for

[36] See for example ELVs for methane emissions from the combustion of natural gas in a spark-ignited lean-burn gas engine in BAT No. 45 II, III of Commission Implementing Decision (EU) 2017/1442, 31/07/2017, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017D1442.

[37] Based on Art. 17 of Kyoto Protocol to the United Nations Framework Convention on Climate Change Kyoto of 11 December 1997.

[38] Also the Commission speaks of "a need to address the combined effects of different pollutants" in the context of its zero pollution ambition, see Communication from the Commission, The European Green Deal, COM(2019) 640 final, 11/12/2019, https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1588580774040&uri=CELEX:52019DC0640, page 14.

example, is not only a GHG, but also a precursor of ground-ozone, a harmful air pollutant.[39] Hence, there is no justification to disregard GHG emissions under the IED.

(c) Technology focus

Under the IED, permit conditions including emission limit values must be based on the **best available techniques** (BAT). These BAT and BAT-associated emission limit values (BAT-AELVs) are developed in the BREF process, including industries and other relevant stakeholders. Focusing on GHG ELVs and energy efficiency requirements in this process will enforce a stronger focus on more and more advanced technologies.

Likewise, when it comes to the permitting process for individual installations, the IED approach offers huge advantages. Clear requirements from the very beginning create an early opportunity for the operator but also the authorities **to stimulate a decision in favour of a more advanced, innovative technology**.

In addition, as the IED permit is following an integrated approach, the choice of technology and the permit conditions will impact not only GHG pollution, but also other pollutants. As stated in the introductory text of this Chapter, "future breakthrough **technologies will contribute to both carbon neutrality and pollutant emission reduction**" (emphasis added).

At present, we can observe great synergies of technologies on the one hand, and untapped potential on the other:[40]

- Iron and steel: SO_2, NO_x and dust pollutants have dropped significantly after technological adjustments following new BAT reference documents in 2009 and 2012. In parallel, CO_2 emissions followed the same trend. It may lead to the conclusion that pollution abatement technologies for SO_2, NO_x and dust pollutants in this sector also had an impact on CO_2 emissions.
- Large combustion plants: SO_2, NO_x and dust pollutants have dropped significantly after technological adjustments following stricter emission limit values and environmental performance standards in 2008, 2013 and 2016. However, CO_2 emissions have not significantly dropped over the same period which suggests that there is still more to achieve through decarbonisation techniques.

4. IED/ETS relation according to prevention principle and new hierarchy of actions

The reason for the exclusion of GHG ELVS from ETS installations under the IED was to avoid "duplication of regulation" (Recital 9 IED). However, the situation since the IED's last recast has changed drastically, as described in Section 1. Today, there is a real need to create synergies between the two legislations by

[39] See also Commission, Evaluation of the Industrial Emissions Directive, SWD(2020) 181, 23/09/2020, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0181&rid=2, page 77.
[40] Both examples taken from CMW/EEB, A New Industry Framework for achieving the EU Green Deal 'Zero Pollution' Goal, June 2020, https://carbonmarketwatch.org/wp-content/uploads/2020/06/A-New-Industry-Framework-For-Achieving-the-EU-Green-Deal-Zero-Pollution-Goal-1.pdf, page 7.

using their different approaches and principles.[41] The argument of double regulation is no longer valid if their interactions are well designed. Even more, based on EU's environmental principles, a combined approach is required according to the 'Hierarchy of action on pollution' and the Energy Efficiency First principle.

According to Art. 191(2) TFEU, Union policy on the environment shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay.

The IED implements several of these principles. It lays down rules on "integrated prevention and control of pollution" in order to "**prevent or, where that is not practicable, to reduce"** and as far as possible eliminate pollution arising from industrial activities in compliance with the principle of pollution prevention and the 'polluter pays' principle, giving **priority to intervention at source** (Recital 2, Art. 1 IED). It also aims to **prevent** the generation of waste, while ensuring prudent management of natural resources and taking into account, when necessary, the economic situation and specific local characteristics (ibid).

The ETS establishes a system for GHG emissions allowance trading within the EU in order to "**promote reductions** of greenhouse gas emissions in a cost-effective and economically efficient manner" (Art. 1 ETSD), but it does not focus on prevention. The prevention principle is not even mentioned by the ETSD, nor by the Inception Impact Assessment for its revision. All the more, the ETS does not follow the principle to give priority to intervention at source as it does not even prescribe to reduce avoidable GHG emissions of industrial activities as long as the operator pays for allowances under the cap. Given its trading approach, emissions allowances may also just be displaced from one source to another as described in Section 2.

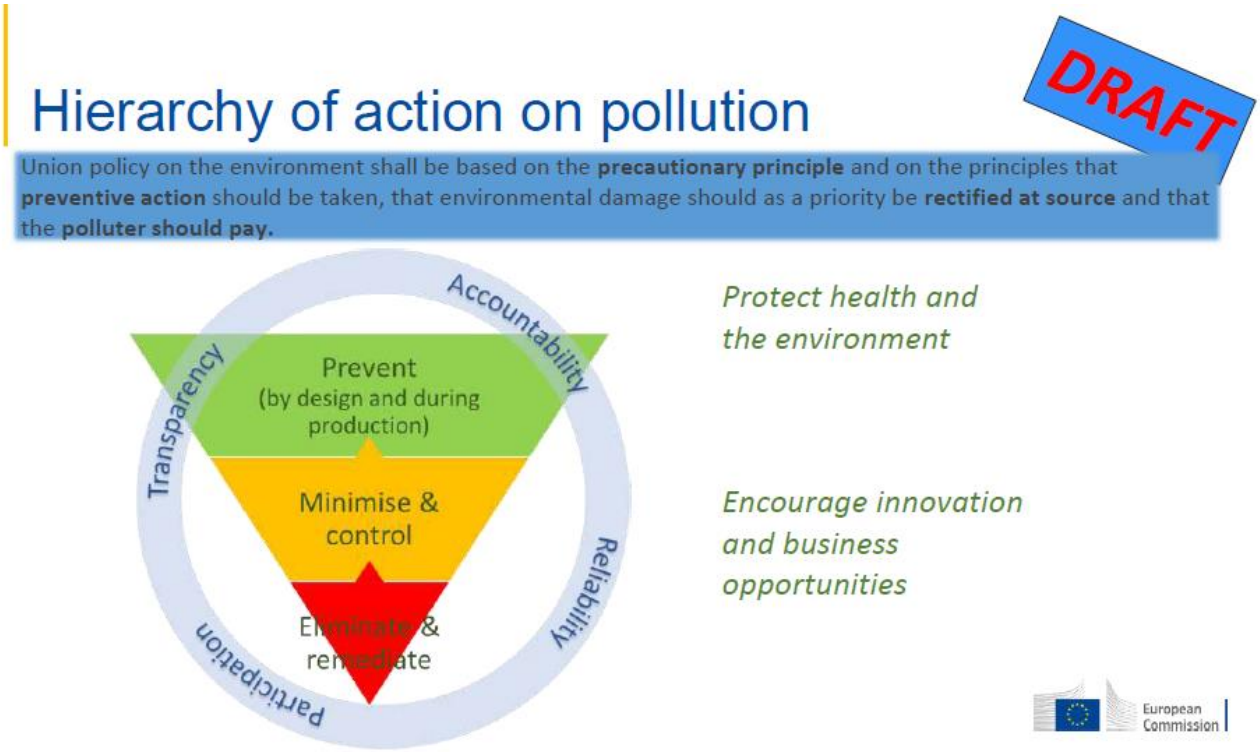
The enforcement of the prevention principle is urgently needed to achieve climate neutrality. The new EU policies and legal obligations lead to a new 'Hierarchy of action on pollution', with a **'prevention first' principle as the first and foremost basis**. Before being able to pay for or trade GHG emissions, one should be required to avoid producing the emissions. This has to be considered in both situations, when determining BATs, but also when setting concrete permit conditions.

A draft **'Hierarchy of action on pollution'** was presented during the Stakeholder Workshop of the Zero Pollution Action Plan in February 2021.[42] In accordance with Art. 191(2) TFEU, it confirms that Union policy on the environment shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay. The draft 'Hierarchy of action on pollution' aims to protect health and the environment and encourage innovation and business opportunities. The new hierarchy is illustrated as an upside down pyramid (see below). At the very top is the largest field of application (green-coloured), representing the action "Prevent (by design and during production)". The second, smaller field of application in yellow is described as "Minimise & control", whereas the smallest field of application, highlighted in red, contains the action "Eliminate & remediate". This pyramid demonstrates the priority order of actions to be

[41] See already ClientEarth, Legal Briefing: Amendments to introduce a CO_2 emission limit value in the IED/IPPC Directive, 2008, https://www.documents.clientearth.org/wp-content/uploads/library/2008-12-12-amendments-to-introduce-a-co2-emissions-limit-value-in-the-ied-ippc-directive-ce-en.pdf.

[42] Commission, Presentation at Stakeholder workshop – Zero Pollution Action Plan for air, water and soil, 10/02/2021, https://ec.europa.eu/environment/system/files/2021-02/20210210_Overview_ZPAP-workshops.pdf, slide 6. A similar 'Zero Pollution Hierarchy of actions' was already presented by EEB, EEB feedback to the Zero Pollution Action Plan roadmap, 29/19/2020, https://eeb.org/library/eeb-feedback-to-the-zero-pollution-action-plan-roadmap/.

considered to tackle pollution. The whole pyramid is surrounded by a ring including the terms "Transparency", "Accountability", "Reliability" and "Participation".



Draft "Hierarchy of action on pollution", European Commission, Presentation at Stakeholder Workshop – Zero Pollution Action Plan for air, water and soil, 10/02/2021, https://ec.europa.eu/environment/system/files/2021-02/20210210_Overview_ZPAP-workshops.pdf (slide 6).

The 'Hierarchy of action on pollution' is embedded in the Zero Pollution Action Plan as a cross-sectoral plan not focusing on individual legislative pieces only, but on the overall approach of tackling pollution by mainstreaming the zero pollution ambition into **all** policy developments. Hence, it **applies to both, the IED and the ETSD**. According to its general approach, it must cover non-GHG as well as GHG emissions, as both emissions are pollutants. This is very clear when looking at the IED that defines pollution in a very broad sense (Art. 3(2) IED)[43]. It is – and always was – clear, that **GHG emissions are pollutants** under the IED, as they are still partly covered by the IED (see Section 3) and as there is only a specific exemption for certain installations due to another Directive, not due to the type or features of these emissions. The Commission itself stated in its proposal of the ETSD in 2001: "The IPPC Directive covers emissions of greenhouse gases. (…) The IPPC Directive defines "pollution" in a very broad sense. (…)"[44] (IPPC Directive is one of the main predecessor directives of the IED).

[43] "'pollution' means the direct or indirect introduction, as a result of human activity, of substances, vibrations, heat or noise into air, water or land which may be harmful to human health or the quality of the environment, result in damage to material property, or impair or interfere with amenities and other legitimate uses of the environment", Art. 3(2) IED.

[44] Proposal for a Directive of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC, COM/2001/0581 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52001PC0581, Explanatory Memorandum.

ClientEarth strongly welcomes this new hierarchy of action on pollution.[45] Before considering actions to minimise/control pollution (e.g. by a cap and trading scheme) or eliminate/remediate pollution, industry and authorities shall aim to prevent polluting emissions – "by design and during production", which includes clearly the choice of technology. This fits perfectly to a strengthened IED, including any kind of GHG and non-GHG pollutants.

When setting energy efficiency standards for energy intensive industries, this 'Hierarchy of action on pollution' transposes at the same time the **Energy Efficiency First Principle** (EE1st), which already applies to the relevant sectors.[46] It is one key pillar of the Energy Union, aiming to ensure secure, sustainable, competitive and affordable energy supply in the EU and to cut GHG emissions.[47] The EE1st principle prioritise investments in efficiency (e.g. by means of cost-optimal energy end-use savings, demand-side response initiatives) in all decisions regarding energy system development (including in industry), over investments in new energy infrastructure. The Commission recognised it as a horizontal guiding principle of European climate and energy governance and beyond, to ensure that only energy is produced that is really needed.[48] It must be driving the EU institutions' decisions and legislation as well as Member States' energy planning, policy and investment decisions (Recital 64 and Art. 2(18) of the Governance of the Energy Union Regulation). In the same vein, the European Climate Law, in the version adopted by the European Parliament on 8 October 2020, places the EE1st principle as a mandatory criterion to be taken into account by the Commission when revising the trajectory to achieve climate neutrality by 2050 (draft Art. 3 EU Climate Law).[49] The Energy System Integration Strategy released in July 2020 also insists on applying the EE1st principle consistently across the whole energy system.[50]

Moreover, lessons can be learned from other environmental sectors. The 'Hierarchy of action on pollution' is similar to the development of the rules on waste prevention and management. The EU Waste Framework Directive (WFD) seeks to prevent and reduce the negative impacts of waste and improve resource efficiency. It sets out a **'Waste hierarchy'** for prioritising action for waste management: preventing waste is the very first preferred option followed by re-use, recycling and recovery. Waste disposal is only the very last resort (Art. 4(1) WFD).[51] Furthermore, Art. 4(3) WFD states that Member

[45] See also the similar 'Zero Pollution Hierarchy of actions' by EEB, EEB feedback to the Zero Pollution Action Plan roadmap, 29/19/2020, https://eeb.org/library/eeb-feedback-to-the-zero-pollution-action-plan-roadmap/.
[46] Even more, the EU is likely to meet its 2020 energy efficiency target only because of the covid-19 pandemic and risks not reaching the 2030 target in the context of the proposed new climate ambition of the EU. The proper and systematic implementation of energy efficiency standards under the IED will be needed to reduce that gap. See also Communication from the Commission, Stepping up Europe's 2030 climate ambition Investing in a climate-neutral future for the benefit of our people, COM/2020/562 final, 17/09/2020, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0562.
[47] See European Parliament, Fact Sheet on Energy Efficiency, 2020, https://www.europarl.europa.eu/factsheets/en/sheet/69/energy-efficiency.
[48] As outlined in the European Green Deal, the EU strategy on Energy System Integration, and the EU Renovation Wave, see Communication from the Commission, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, COM/2020/662 final, 14/10/2020, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0662.
[49] Amendments adopted by the European Parliament on 8 October 2020 on the proposal for a regulation of the European Parliament and of the Council establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 (European Climate Law), https://www.europarl.europa.eu/doceo/document/TA-9-2020-0253_EN.html.
[50] Communication from the Commission, Powering a climate-neutral economy: An EU Strategy for Energy System Integration, COM(2020) 299 final, 08/07/2020, https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=COM:2020:299:FIN, page 5.
[51] See also Commission, Waste Framework Directive, https://ec.europa.eu/environment/topics/waste-and-recycling/waste-framework-directive_en.

States shall make use of economic instruments and other measures to provide incentives for the application of the waste hierarchy. This shows that the prevention and hierarchy approach can also be combined with economic incentives.

5. Conclusions: Benefiting from synergies

Today's climate, environmental and human health challenges require a transition from an exclusive relationship between the IED and ETSD towards an inclusive, harmonised and synergetic approach. The EU must act in consistency with the international Paris Agreement, the new growth strategy 'European Green Deal', as well as the new policy and legislative files based on it. Shortcomings in the ETS can be corrected by an improved IED, by making full use of its comprehensive scope, its integrated approach and its focus on innovative technology. The redesign of interactions between the IED and the ETS must follow, first and foremost, the EU's prevention principle according to a 'Hierarchy of action on pollution', including climate pollution.

Finally, the synergies between the prevention approach of the IED and the market-based approach of the ETS can lead to a **'win-win-win' situation** for the operator, climate and environment. When less GHG emissions are produced/less energy is used, (1) the operator has to buy less ETS allowances or can sell those that not longer needed; (2) the climate will be less damaged; and (3) other environmental damage may be prevented through cleaner technology.

In particular, the combination of concrete environmental performance standards that ensure a level playing field, and financial incentives that ensure lower costs/trading with leftover ETS allowances, may **stimulate innovation** more than ever. This combination may lead to a positive "race to the bottom" as it creates incentives to constantly operate with the least polluting and least energy intensive technologies. This innovation process will then increase the likelihood of being able to tighten the cap of the ETS Directive to achieve climate neutrality by 2050.

In conclusion, the current exclusion provisions in Art. 9 IED and Art. 26 ETSD must be deleted accordingly.

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