

## Rethink Plastic response to the public consultation on new rules to prevent methane leakage

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The European Union (EU) seeks to become a global leader on methane emissions. Despite this objective, little regulatory attention has been paid to the critical role of petrochemicals. Indeed, during consultation on a potential legislative act to reduce methane emissions in fossil gas and oil sectors, the Commission does not seem to be taking into account the role the petrochemical sector plays in contributing to the very methane emissions it is trying to reduce. We believe this needs to be addressed, not only to protect the climate system but because it also has implications for EU objectives on plastic pollution.

### Petrochemicals and Methane Emissions

The relationship between petrochemicals and methane emissions is well-known. Depending on geological layers, fossil gas yields varying levels of natural gas liquids (NGLs) such as propane and ethane and oil yields varying levels of naphtha. Fossil gas and oil well pads contribute to methane emissions through leakage, venting and inefficient flaring. These NGLs and naphtha are then used as feedstocks for steam crackers—industrial facilities that use steam and intense heat in the absence of oxygen—to produce petrochemicals known as propylene and ethylene. Steam crackers are energy-intensive facilities that typically use methane as their energy source, further contributing to methane emissions through leakage, venting and inefficient flaring. According to the International Energy Agency, petrochemicals account for 8% and 14% of total primary demand for fossil gas and oil, respectively, and will soon become the world's biggest driver of oil demand – ahead of trucks, aviation and shipping.<sup>1</sup> Moreover, the EU petrochemical sector's demand for ethane to produce ethylene is a known driver of hydraulic fracturing (fracking) in the Northeast United States<sup>2</sup>.

### Petrochemicals and Plastic Pollution

The relationship between petrochemicals and plastic pollution is also well-known. Propylene and ethylene are polymerized to produce polypropylene (PP) and polyethylene (PE), respectively, which are the two most common plastics in use today constituting over half of all plastics produced<sup>3</sup>. PP is used to make many items, including bottles, packaging and bags, while PE is used extensively in packaging. Plastic pollution is largely the result of over-production of cheap

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<sup>1</sup> International Energy Agency (2018). *The Future of Petrochemicals: Towards More Sustainable Plastics and Fertilizers*. Pages 11 and 27. Available [here](#).

<sup>2</sup> National Geographic (2021). *Europe's Plastics Industry is about to Boom. U.S. Fracking is Driving It*. Available [here](#).

<sup>3</sup> PlasticsEurope (2016). *The Plastic Industry*. Available [here](#).

virgin polymers (plastic), flooding the EU marketplace with plastic products and packaging, mainly single-use, thereby undermining the uptake of secondary raw materials and the development of more resource efficient and circular products and systems.

## Recommendations

The Commission cannot parcel out the methane emissions associated with fossil gas and oil, only attributing them to the energy sector while ignoring those from the petrochemical sector. From production through processing—where the vast majority of methane emissions occur—those methane emissions are directly attributable to both. Therefore, any regulatory framework on methane monitoring and mitigation should also apply equally to both.

We therefore make the following recommendations.

- **First**, the Commission should apply its methane monitoring and mitigation measures equally to both the energy and petrochemical sectors, namely its framework on measurement, reporting, verification (MRV), leak detection and repair (LDAR) and ban on routine venting and flaring (BRVF). In the EU Strategy to Reduce Methane Emissions, the Commission references applying LDAR to “leaks on all fossil gas infrastructure, as well as other infrastructure that produces, transports or uses fossil gas, including as a feedstock” but this is not sufficient.<sup>4</sup> The Commission should ensure that petrochemicals from both fossil gas *and oil* are covered by the LDAR obligation and further ensure that MRV and BRVF equally apply to petrochemicals.
- **Second**, the Commission should apply the MRV-LDAR-BRVF framework to all fossil gas and oil consumed in the EU—*i.e.*, across the supply chain—regardless whether the products are ultimately consumed in the energy or petrochemical sector. In other words, the Commission should extend the obligations in the MRV-LDAR-BRVF framework to companies importing (or exporting) fossil energy and petrochemicals into the EU, banning imports of hydrocarbons for use as an energy source or feedstock in the absence of compliance. As the Commission rightfully observes, “[m]ost of the fossil fuels consumed in the EU are imported, and 75-90% of the methane emissions associated with these fuels are emitted before reaching the EU’s borders” thus “obligating non-EU entities supplying energy to the EU as well as EU actors would therefore considerably increase the benefits of such legislation, both in terms of improving information on methane emissions and mitigating them.”<sup>5</sup> Moreover, as the Commission is well aware, international trade law does allow the Commission to extend the MRV-LDAR-BRVF framework to imports so long as not arbitrary or unjustifiable discrimination or a disguised trade restriction (though provision may be required to allow importers to demonstrate compliance with measures deemed comparable in effectiveness). We would welcome a chance to share with the

<sup>4</sup> European Commission (2020). *Communication: an EU Strategy to Reduce Methane Emissions*. Page 11. Available [here](#).

<sup>5</sup> European Commission (2020). *Inception Impact Assessment: Proposal for a Legislative Act to Reduce Methane Emissions in the Oil, Gas and Coal Sectors*. Page 4. Available [here](#).

Commission what this means in terms of development and design of its MRV-LDAR-BRVF framework.

Without these measures, our consumption of petrochemicals derived from fossil gas and oil will continue to drive global methane emissions in the EU and beyond, undermining EU objectives of the European Green Deal and Circular Economy Action Plan.

We thank you for your consideration of this matter, and respectfully request a meeting to exchange views in the coming weeks.

**For more information**

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