



## A fossil-free TEN-E regulation

NGO briefing on the revision of the Trans-European energy infrastructure regulation

**March 2021**

On 15 December 2020, the European Commission published its proposal<sup>1</sup> for reforming the EU's rules for selecting EU energy infrastructure projects for funding and fast-tracking. Unfortunately, despite removing the category of fossil gas projects, the Commission's proposal does not go far enough in removing the fossil gas industry from its central role in the project selection process, including meaningful sustainability criteria, and ensuring subsidies to fossil fuel projects are removed.

We call on MEPs to address these serious failings to ensure the revised regulation is in line with the Paris climate agreement and limiting temperature increase to 1.5°C by transitioning rapidly away from fossil fuels.

### Remove the fossil fuel industry from project selection

The Commission's proposal to revise the Trans-European Networks Energy (TEN-E) Regulation fails to end the current system that grants fossil gas transport companies, operating through the European Network of Transmission System Operators for Gas (ENTSO-G), undue influence over

<sup>1</sup> European Commission (2020). *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on guidelines for trans-European energy infrastructure and repealing Regulation (EU) No 347/2013*. COM(2020) 824 final.

the selection process for identifying priority EU energy infrastructure projects. If the Commission's proposal is not significantly revised, ENTSO-G members will remain largely responsible for determining the EU's gas infrastructure needs and selecting priority energy projects. These projects, known as Projects of Common Interest (PCIs), benefit from fast-tracked planning processes, invaluable political support, and can be eligible for millions in EU subsidies.

Europe's energy regulators concluded that "*(m)ost of the problems that arose during the past implementation of the Regulation could be ascribed to the regulatory role inappropriately attributed to the ENTSOs, despite their conflict of interest*" in a joint position paper in June 2020.<sup>2</sup> However, the Commission's proposal offers minor changes, such as small improvements in data transparency and additional oversight by the European Commission and the Agency for the Cooperation of Energy Regulators (ACER). It does not tackle the fundamental conflict of interest created by leaving ENTSO-G in charge of developing the scenarios that underpin the selection of projects and responsible for developing the methodology for the cost-benefit analysis used to help choose projects.

The TEN-E regulation will continue to suffer from a lack of independent and holistic expertise needed to build a decarbonised, interconnected and efficient energy system and will instead remain focused on serving the narrow interests of the gas industry. In the upcoming negotiations, the European Parliament should remove ENTSO-G from its central role in the decision-making process and create a governance system that is genuinely independent and fit for driving the energy transition.

## **Fossil free infrastructure**

The European Commission has proposed to remove fossil gas infrastructure as an eligible category of projects. This is welcome. Since entering into force in 2013, the TEN-E regulation has granted PCI status to 266 fossil gas projects and facilitated nearly €5 billion in taxpayer funded grants and subsidized loans for 41 fossil gas infrastructure projects.<sup>3</sup> A significant share of these projects have been delayed or even abandoned, in part due to increasing local opposition, resulting in a waste of nearly €450 million in EU subsidies.<sup>4</sup>

A study by Artelys found that the gas projects included on the 4th PCI list were not necessary for energy security as existing gas infrastructure is capable of meeting future gas demand scenarios even in cases of extreme supply disruption.<sup>5</sup> Any proposal to reintroduce the fossil gas category would risk wasting even more EU public funds on projects that would quickly become stranded

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<sup>2</sup> CEER (2020). *Position on Revision of the Trans-European Energy Networks Regulation (TEN-E) and Infrastructure Governance*. Available at: <https://www.ceer.eu/documents/104400/-/-/c4f763dd-27e7-7113-9809-1ec50f530576>

<sup>3</sup> Global Witness (2020). *Pipedown report*. Available at: <https://www.globalwitness.org/en/campaigns/oil-gas-and-mining/pipe-down/>

<sup>4</sup> Global Witness (2020). *EU companies burn fossil gas and taxpayer cash*. Available at: <https://www.globalwitness.org/en/campaigns/fossil-gas/eu-companies-burn-fossil-gas-and-taxpayer-cash/>

<sup>5</sup> Artelys (2020). *An updated analysis on gas supply security in the EU energy transition*. Available at: <https://www.artelys.com/wp-content/uploads/2020/01/Artelys-GasSecurityOfSupply-UpdatedAnalysis.pdf>

assets. Europe cannot afford to expand and lock-in even more fossil fuel infrastructure if it is to meet its 2030 and 2050 climate and energy targets.

The Commission's proposal introduces two new gas-related categories: hydrogen and smart gas grids. Both categories create serious risk that the TEN-E regulation will continue to subsidise investments in fossil fuel infrastructure. This is despite the fact that the European Investment Bank (EIB) decided in 2019 to stop financing fossil fuel projects.<sup>6</sup>

As proposed, the **hydrogen category** includes projects for hydrogen produced from fossil fuels. So-called "low carbon" or "blue hydrogen" relying on carbon capture and storage (CCS) to reduce emissions, is included under this category. However, CCS remains an unproven technology that has failed to materialise at scale despite decades of support and billions in investment. It also does nothing to address upstream emissions from the extraction of fossil gas required to produce this hydrogen. Betting on such a technology is highly risky from a financial and climate perspective.

The new hydrogen category includes a worrying reference to the need for a EU-wide hydrogen network. To contribute to the transition away from fossil fuels, hydrogen must be produced from 100% additional renewable electricity<sup>7</sup>, which means initial volumes will be small. Retrofitting existing pipes for blending hydrogen i.e. adding a percentage of hydrogen to fossil gas should be excluded as it supports the continued use of fossil gas. Another report has shown that it makes more sense to adopt a local approach, locating hydrogen production facilities as close to demand centres as possible.<sup>8</sup> Added to these issues, the cost and technical difficulties involved in transporting hydrogen over long distances means that **only localized construction or repurposing of existing gas grids for hydrogen should be considered.**

The proposed new **smart gas grids** category would allow projects aimed at integrating fossil hydrogen or "blue hydrogen" (referred to as "*low carbon*" gases) and potentially unsustainable biogas investments into the gas grid. The EU already has a poor track record of supporting unsustainable biomass and biofuels.<sup>9 10</sup> The introduction of this new category is not properly justified, and is likely to provide little benefit for the consumer.<sup>11</sup> **The smart gas grid category should either entirely exclude fossil and fossil-based gases as well as unsustainable biomethane projects, or be deleted.**

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<sup>6</sup> EIB (2019). EU Bank launches ambitious new climate strategy and Energy Lending Policy. Available at: <https://www.eib.org/en/press/all/2019-313-eu-bank-launches-ambitious-new-climate-strategy-and-energy-lending-policy.htm>

<sup>7</sup> See CAN Europe position on hydrogen. Available at: <https://caneurope.org/position-paper-hydrogen/>

<sup>8</sup> Artelys (2020). *What energy infrastructure to support 1.5°C scenarios?* Available at: <https://www.artelys.com/wp-content/uploads/2020/11/Artelys-2050EnergyInfrastructureNeeds.pdf>

<sup>9</sup> EU scientists letter to European Commission (February 11 2021). *Letter Regarding Use of Forests for Bioenergy*. Available at: <https://tinyurl.com/EUbiomass>

<sup>10</sup> T&E (2018). *Up in smoke: Europe's cars driving deforestation in Southeast Asia*. Available at: <https://tinyurl.com/EUbiofuels>

<sup>11</sup> BEUC (2020). *HOW TO MAKE THE HOME HEATING AND COOLING REVOLUTION CONSUMER-FRIENDLY*. Available at: [https://www.beuc.eu/publications/beux-x-2021-017\\_heat\\_decarbonisation.pdf](https://www.beuc.eu/publications/beux-x-2021-017_heat_decarbonisation.pdf)

Finally, the Commission did not remove **carbon dioxide** pipeline projects. These projects are linked to the technology of CCS or CCU (utilisation of carbon dioxide to extract more fossil fuels). For reasons already stated, **CCS should not benefit from EU subsidies and this category should be removed.**

### **Meaningful sustainability criteria**

The TEN-E regulation and the selection of projects are part of EU energy policy and therefore must respect the principle of integration of environmental protection requirements, and in particular promote sustainable development<sup>12</sup>. The Commission's inclusion of sustainability as priority criteria across most infrastructure categories is welcome. However, a clear definition of the criteria is lacking.

Without a proper definition of sustainability in the TEN-E regulation, there is a risk that the definition is created during the PCI selection process. This would be far from ideal as ENTSO-G does not have a good track record in this area. Indeed, the current sustainability assessment by ENTSO-G consists of comparing fossil gas projects against coal or oil projects. ENTSO-G's failure to conduct adequate climate impacts for fossil gas projects was acknowledged by the European Ombudsman last year<sup>13</sup>.

The climate and environmental impact of any gas-related project should be evaluated against the cleanest available technology. For example, the Commission only proposes to set a greenhouse gas emission savings requirement of at least 70 percent for the 'electrolyser' category. The threshold should be increased to reflect the 80 percent threshold for greenhouse gas emission savings in order to be consistent with the proposal in the draft Delegated Act of the Taxonomy regulation, and applied to all categories of PCI projects.

**A full definition of the sustainability criteria must be included in the TEN-E regulation.** This new definition of sustainability should refer to full life-cycle greenhouse gas emissions, to ensure other greenhouse gases such as methane, including for biogas projects, are taken into account. Biogas projects also need multiple sustainability criteria, including a requirement that only locally-sourced agricultural and forest waste and residues should be allowed as feedstocks for biogas projects to be eligible for PCI status.

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<sup>12</sup> Art. 11, Treaty on the Functioning of the European Union.

<sup>13</sup> Decision in case 1991/2019/KR on the European Commission's action concerning sustainability assessment for gas projects on the current List of Projects of Common Interest. Available at: <https://www.ombudsman.europa.eu/en/decision/en/135095>

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## Detailed Concerns

Governance	
Issue	Concerns and needed improvements
<p><b>Scenario planning</b> Art. 12, paras. 1, 3, 7 Annex III, sec. 2(4)</p>	<p>At present, ENTSO-G produces gas demand scenarios, with limited oversight. It is positive that the Commission proposes that the scenarios take into account the EU’s climate change targets and undergo consultation. However, leaving ENTSO-G responsible for producing gas demand scenarios, including for the new hydrogen category, means the structural risks of vested interests basing the scenarios on overestimated demand for the gases they profit from transporting remain.</p> <p>An independent technical expert body should directly outline joint electricity and gas scenarios: this would greatly improve the efficiency and accountability of the process.</p> <p>It will be crucial to define which “<i>relevant stakeholders</i>” must be consulted before the publication, as well as during the scenario's development process. A precondition for successful guidelines is a balanced representation of every energy sector including flexibility operators (demand side response, storage etc.), from demand to supply side as well as stakeholders from the scientific community and civil society, including communities that would be affected by these projects.</p>

**Cost-benefit analysis**

Art. 11, paras. 1, 5

The Commission proposes that ENTSO-G, together with ENTSO-E, will continue to produce the methodology for the cost-benefit analysis of projects. The Commission suggests that the methodology be subject to consultation by stakeholders and that any decision to ignore the resulting feedback must be documented.

However, the basic conflict of interest remains: a group of gas transport companies with their revenue linked to gas infrastructure build-out sets the criteria by which their own projects will be judged. To date, this model has not created integrated gas and electricity market and network models, despite a requirement that this be the case under the current TEN-E regulation, and there is no reason to believe this disjointed approach will improve.

Instead, an independent technical expert body should develop and conduct analyses. A holistic vision of energy solutions must be ensured if the EU wants to deliver a real interconnected energy system in the next decades. This body should review market and network models to unlock energy system integration, notably by integrating assumptions and data on energy efficiency first solutions, including demand response and prosumers.

The cost-benefit analysis should include full life cycle emissions of a project from extraction to end use including methane leakages.

**Infrastructure gap identification**

Art. 13;

Annex III, sec. 2

As with the current regulation, in the Commission's proposal ENTSO-G enjoys outsized influence over the creation of PCI lists: future projects must first be included in ENTSO-G's list of proposed projects, the Ten-Year Network Development Plan. Thus only projects gas transport companies want, not what Europe's energy demands require, can be considered. ENTSO-G also drafts the guidelines that determine which projects can be on the list approved by the Commission or Parliament.

An independent body should determine which projects can be on proposed PCI lists, including identifying infrastructure priorities and gaps. This body can take the form of either an ad hoc technical expert body or Commission/ACER with the oversight of an independent expert panel. Such independent expert groups are common in EU work, including the Platform on Sustainable Finance, which is funded through the European Commission.

Also as in the current regulation, the Commission's proposal requires final PCI lists to be approved by the European Commission and are adopted unless rejected by the European Parliament or European Council, maintaining the current process. However, these approvals may only be of the entire PCI list. Instead, the Parliament should have the ability to approve and reject specific projects or specific categories of projects. The Commission should also present the draft final list to MEPs before the high-level decision-making meeting ahead of the drawing up of the final list for approval.



Infrastructure Categories	
Issues	Concerns and needed improvements
<p><b>Hydrogen category</b></p> <p>Recital, paras. 13, 14;</p> <p>Art. 4, para. 3(d);</p> <p>Art 11, para. 11;</p> <p>Annex I, sec. 3</p> <p>Annex II, sec. 3</p>	<p>Because only 100 percent renewable hydrogen is aligned with the goals of the Paris climate agreement and the EU’s climate and energy targets, the TEN-E regulation should explicitly only support renewable hydrogen projects. The Commission’s proposal uses unclear definitions for what a hydrogen project can be (renewable and low carbon) and thus could allow projects that create, transport, or store fossil fuel-based hydrogen. A transitional use of fossil-based hydrogen is highly problematic as infrastructure developed will be different than that required for renewables-based hydrogen, leading to a fossil fuel lock-in or stranded assets. Given the low volumes of renewable-hydrogen currently available, hydrogen projects should only support use for sectors that can’t be electrified.</p> <p>Throughout the proposal, the term “<i>hydrogen</i>” should be replaced with “<i>renewable hydrogen</i>” (specifically in Annex I and II), while “<i>hydrogen stakeholders</i>” should be replaced with “<i>renewable hydrogen stakeholders</i>.” Additionally, article 4, para 3(d) should explicitly state that hydrogen from fossil fuels, including ‘low carbon’ hydrogen should be excluded as well as Recitals 13 and 14.</p> <p>The Commission’s proposal is also not in line with the cluster approach as outlined in its Hydrogen Strategy, at least in the nearer term. A focus on large transmission infrastructure for hydrogen risks creating a mismatch between transport capacities and actual available volumes of renewable hydrogen.</p>

<p><b>Smart gas grids</b></p> <p>Recital, para. 15;  Art. 2, para. 9;  Art. 4, para 3(f);  Annex I, sec. 13;  Annex II, sec. 2  Annex IV, sec. 6</p>	<p>The proposal includes only a vague definition of smart grids, creating the possibility that such projects may be used to transport fossil fuel-based gases (“<i>low carbon</i>”). To ensure only renewable hydrogen or sustainable biomethane is transported in projects, the proposal should include language excluding projects that allow for the blending of these gases with fossil gas or fossil hydrogen and remove language allowing for projects transporting “<i>low carbon</i>” gases.</p> <p>Biomethane, if truly sustainably produced, will likely not be available in volumes big enough to justify injection into the grid. Only projects that can prove the availability of necessary volumes of biomethane that complies with strict sustainability criteria should be included.</p>
<p><b>Carbon capture and storage / Carbon dioxide transport infrastructure</b></p> <p>Annex IV</p>	<p>Carbon capture, storage, and transport infrastructure should be eliminated as a category. CCS is still unproven on the large scale required under several climate mitigation scenarios, it requires large amounts of energy, raises concern about safety and significant leaks and is currently mostly used for extraction of even more fossil fuels - via enhanced oil recovery.</p> <p>Studies and projections also show that significant levels of CCS are not expected before 2030, at the earliest. Despite billions in public support over the past decade, there are 51 large-scale CCS projects across the globe, of which 19 are operating and most are pilot-scale projects that demonstrate only a part of CCS (e.g., capture but not storage).<sup>14</sup></p>

<sup>14</sup> Global CCS Institute (2019). Facilities Database, available at: <https://co2re.co/FacilityData> (accessed 19 September 2019)

Sustainability Criteria	
Issues	Concerns and needed improvements
<p><b>General and specific criteria</b></p> <p>Art. 2,</p> <p>Art. 4, para. 2(a)</p>	<p>The Commission’s proposal does not contain a detailed definition of sustainability. This will perpetuate a problem experienced under the current regulation, in which decisions about whether a project is sustainable are ad hoc and heavily influenced by fossil gas transport companies through ENTSO-G.</p> <p>A more detailed definition of sustainability criteria must be enshrined in the regulation. The carbon footprint of a hydrogen or smart gas project should be evaluated against the cleanest available technology such as that applied for the “<i>electrolyser</i>” category which defines in Annex 2 point 4 the greenhouse gas emissions savings requirements of at least 70 percent greenhouse gas emission reductions. This should be increased to 80 percent savings.</p>

**Sustainability of carbon dioxide, smart gas grid, hydrogen, electrolyser and electricity projects**

Recital, para. 16;

Art. 4, para. 3  
(a),(c),(d),(f);

Art. 4, paras.

Annex II, sec. 2(a);

Annex IV, sec. 5, 6, 7

Sustainability is a broader concept that needs to consider environmental and social elements such as nature conservation, climate protection and social impacts.

Biogas projects need multiple sustainability criteria, including a requirement that only locally-sourced agricultural and forest waste and residues should be allowed as feedstocks for biogas projects to be eligible for PCI status. This is essential to ensure that biogas production doesn't drive direct or indirect land use changes not captured by the GHG emissions calculations, encourage industrial livestock production, or have harmful biodiversity impacts.

Explicit sustainability criteria for electricity infrastructure projects should be added, including impacts on protected habitats and species, and the exclusion of projects that facilitate the expansion of fossil-fuel based electricity generation.

Using national energy and climate plans (NECPs) as a benchmark for the deployment of renewable energy fails to address the need for higher rates of renewable energy deployment and the increase in the EU 2030 renewable energy target in the upcoming revision of the Renewable Energy Directive. Countries develop NECPs on a 10-year basis (with an update after five years), meaning the NECP benchmark used by Member States would not be updated regularly enough to align with the other planning steps outlined in the Commission proposal. In parallel, the revision of the Renewable energy directive must include a higher EU 2030 renewable energy target to account for increased demand for renewable energy for the purposes of producing hydrogen in addition to demand in other sectors, including through the electrification of the heating and transport sectors.