

# CATF Comments on European Commission Roadmap: A EU Hydrogen Strategy



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Clean Air Task Force (“CATF”)—an energy and climate research and advocacy organisation with offices in the United States and Europe—applauds the European Commission for its vision and support for clean hydrogen energy as a vital tool to meet the EU’s mid-century climate neutrality goals, while striving to integrate energy systems. Analysis indicates that clean hydrogen (and/or ammonia produced from clean hydrogen) may be the most cost-effective route to decarbonizing heavy surface transportation, marine shipping, certain heavy industrial sectors such as ironmaking, electricity systems dominated by high proportions of variable renewable generation, and other sectors. As such, Commission support for the development of clean hydrogen technology, infrastructure, and markets is likely to yield large dividends for climate change mitigation, and could also support European post-pandemic economic recovery and result in innovation spillovers and job creation.

As noted in the Commission’s 28 May 2020 Roadmap, a number of barriers must be overcome before the full value of clean hydrogen can be realized. In particular, there is an urgent need to reduce clean hydrogen costs through technology improvements and vastly increased scale, to provide for wide fuels availability on an accelerated timeline to build consumer confidence, and to institute clear market mechanisms that support industrial investment decisions. While CATF understands the Commission’s preference for renewable hydrogen, in order to maximize the chance of reaching decarbonization targets, CATF strongly recommends an inclusive approach in supporting the development of net-zero sources of hydrogen—including renewables, processes that utilize carbon capture and storage, and nuclear energy. An inclusive approach will help facilitate the most rapid building at scale, optimize the development of infrastructure, and provide the greatest options for reducing costs.

Key CATF recommendations for advancing clean hydrogen are summarized below.

- Sustained financial support (such as grants) for clean hydrogen production demonstration projects, several of which appear to be gaining traction already (*e.g.*, NorthH2, Porthos, and supporting projects such as Northern Lights).
- Planning, development, and financial support for hydrogen storage and delivery infrastructure, including where appropriate conversion of existing natural gas systems to increasing hydrogen content over time.
- Financial support (*e.g.*, clean hydrogen fuel purchase cost assistance, perhaps in the form of ETS credits or other schemes) for large demonstrations of clean hydrogen use in heavy industry and heavy transportation.



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- Support for international decarbonization initiatives including ammonia use in maritime shipping at key bunkering ports (as recommended in “Zero-Carbon Fuels for Shipping” (2020), available here: [https://www.catf.us/wp-content/uploads/2020/06/2020\\_SIPA\\_Zero-Carbon-Shipping.pdf](https://www.catf.us/wp-content/uploads/2020/06/2020_SIPA_Zero-Carbon-Shipping.pdf)); learning and collaboration with key hydrogen production and utilization projects in the United Kingdom such as Acorn, H21, and Gigastack; joint exploration of hydrogen production with North African countries; and dialog with industrial suppliers such as the EUTurbines initiative as well as European industrial firms, many of which offer world-leading technology in the hydrogen and ammonia space.
- Transparent assessments of supplied hydrogen carbon intensity, including fair treatment of methane emissions resulting from all stages of fuels production and use, with proportionate allocation of clean hydrogen benefits and incentives.

CATF understands that some of these actions may best occur in coordination with other Commission activities including the EU Innovation Fund, EU Smart Sector Integration, PCI/Horizon 2020, and the Commission’s forthcoming Methane Strategy, and looks forward to further constructive engagement in each venue as appropriate to further Europe’s decarbonization objectives.

Sincerely,

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