August 8, 2023

Office of Transportation and Air Quality, Assessment and Standards Division  
U.S. Environmental Protection Agency  
EPA Docket Center, Air Docket, Mail Code 28221T  
1200 Pennsylvania Avenue NW  
Washington, D.C. 20460

Via Federal eRulemaking Portal at: www.regulations.gov (Docket No. EPA-HQ-OAR-2023-0072)


The Low Carbon Solutions business of Exxon Mobil Corporation (ExxonMobil) respectfully submits the following comments on EPA’s Proposal.

We are ExxonMobil Low Carbon Solutions

ExxonMobil supports society’s ambition to achieve net-zero emissions by 2050 and plans to play a leading role in the energy transition. In 2021, ExxonMobil established its Low Carbon Solutions (LCS) business, leveraging its unique combination of capabilities, such as geophysics, well and pipeline expertise, and complex project management. We plan to reduce our corporate-wide operated assets greenhouse gas (GHG) intensity (Scope 1 and 2 emissions) by 20-30% by 2030 (versus 2016 levels). With advances in technology and clear and consistent government support, we also aim to achieve net-zero operated Scope 1 and 2 GHG emissions by 2050. We are commercializing low-carbon opportunities for broad deployment around the world, including carbon capture and storage (CCS), hydrogen (H\textsubscript{2}), and low-emission fuels. We see these technologies as key to reducing GHG emissions in the highest-emitting sectors, such as power generation, heavy industry, and commercial transportation. CCS has been identified as a necessary technology to decarbonize hard to abate
sectors like load-following power generation, which is critical for maintaining reliability of the grid and enabling the deployment of other diverse low carbon energy resources.

ExxonMobil’s creation of our LCS business with a central focus on CCS is grounded in the technology’s broad availability and deployability. We have already signed CCS service commitments with major emitters and will continue to significantly expand our future capabilities. We have also announced that we are progressing towards an expansion of our Baytown facility to enable clean hydrogen production based on low carbon intensity (CI) natural gas combined with CCS. When completed, the facility will be the largest low GHG, “blue” hydrogen production plant in the world.

ExxonMobil supports reducing power plant GHG emissions through implementation of CCS. EPA should propose one Best System of Emissions Reduction (BSER) and allow alternate compliance pathways to meet the associated emissions standard including qualified clean H2 (as defined in the US Inflation Reduction Act [IRA] 45V). This will provide greater compliance flexibility for each operator’s circumstances and improve consistency of approach.

We are concerned that the ability of the regulated entities to meet the proposed compliance timeframes may be difficult considering the infrastructure build-out necessary to deploy these technologies at-scale. This concern is not grounded in technological feasibility, but by the amount of time that will be necessary to permit and construct the needed infrastructure to support CCS and qualified clean H2. Project timelines will be dictated by the ability to move through multiple evolving permitting regimes effectively, in addition to other challenges, including securing long-lead time specialized material of construction for carbon dioxide (CO2) pipelines and sequestration wells or securing reliable supply contracts of qualified clean H2 and conversion kits for combustion turbines. EPA’s compliance timelines should be based on realistic assumptions and in light of this uncertainty, EPA should provide off-ramps for the proposed compliance deadlines for circumstances outside the affected facilities’ control as long as they are showing good faith in progressing permits and other necessary steps.

**EPA should adopt Treasury’s eligibility criteria for 45V and 45Q**

To maintain consistency with Congress, EPA should adopt a 75% capture threshold for CCS in power consistent with the US IRA 45Q. EPA should recognize all qualified clean hydrogen as defined in the US IRA 45V (well-to-gate < 4.0 kg CO2e/kg H2 produced) as low-GHG hydrogen for purposes of compliance via the alternate compliance pathway. Additionally, EPA should allow blending of H2 at different percentages and carbon intensity (CI) as long as the power plant emissions standard, in lb CO2/MW-hr produced, is met. In fact, blending of any amount of clean H2 will have a positive GHG impact. For example, the emissions standard based on CCS with 75% capture efficiency could be met with qualified clean H2 defined by the US IRA.

EPA is also soliciting comments on several of the issues the IRS is contemplating in the 45V rulemaking including: additionality, time matching and connectivity for power; capture efficiencies for Autothermal Reformers (ATRs) / Steam Methane Reformers (SMRs) and the CI of methane. Where qualified clean H2 is used as an alternate compliance pathway, EPA should defer to the
Treasury's lead on implementation of 45V and 45Q as established in the IRA to ensure that the regulated industry does not confront inconsistent or overlapping requirements on all matters tax related. Establishing multiple qualifications will confuse the market and may limit the deployment of H₂. For example, while EPA is soliciting comment “on providing EGUs with a representative and climate-protective default assumption for carbon capture rates associated with SMR and ATR Hydrogen pathways” (pg. 33329), the US IRA allows taxpayers to submit a provisional emissions rate. Our Baytown Blue Hydrogen project that is being progressed utilizing best-in-class technologies, will be designed to capture greater than 98% of the CO₂ associated with H₂ production. If EPA finalized language requiring H₂ producers to only use default factors in GREET, it would inadvertently put lower GHG production pathways at a disadvantage.

ExxonMobil appreciates the opportunity to provide these comments. Should EPA require additional information relative to these comments, or have any additional questions regarding this submittal, please contact Matt Reeves at matt.reeves@exxonmobil.com.

Sincerely,

Matthew Crocker

Senior Vice President, Low Carbon Solutions