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Considering Unintended Consequences in Policy Analysis: Total Fuel Cycle Emissions and Alternative Fuel Vehicles

This talk will focus on policies aimed at incentivizing the use of alternative fuel vehicles – especially biofuels, hydrogen, electric vehicles, and clean diesel. The talk will discuss the meaning of a "total fuel cycle analysis" which is used to capture energy and emissions from not only the vehicle use stage of the automobile lifecycle, but also upstream emissions associated with fuel production. In this way, policy analysts can evaluate the overall system impacts associated with policies aimed at increasing a particular type of fuel in automotive markets. The talk will extend this analysis to the marine sector, and discuss total fuel cycle emissions in the context of marine transportation.